UNITED STATES DEPARTMENT OF LABOR
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BUREAU OF LABOR STATISTICS
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Monthly Labor Review

Hugh S. Hanna, Editor

Volume 42, Number 6
June 1936

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UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1936

For sale by the Superintendent of Documents, Washington, D. C. - - Price 30 cents a copy
Subscription price per year: United States, Canada, Mexico, $3.50; other countries, $4.75

Published under authority of Public Resolution No. 57, approved May 11, 1922 (42 Stat. 541), as amended by section 307, Public Act 212, 72d Congress, approved June 30, 1932. This publication approved by the Director, Bureau of the Budget.

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This Issue in Brief

An accurate appraisal of the economic status of workers in the cotton-textile industry cannot end simply with an analysis of wages and earnings. Other factors of importance include a wide range of employment conditions, such as procedures in hiring and firing, systems of training, working time, methods of wage payment, housing facilities provided, and social insurance provisions. These supplementary factors are considered in detail in an article beginning on page 1477. The article is part of a larger study, made by the Bureau of Labor Statistics, of wages and working conditions in the textile industry, called for by a Presidential order in 1934.

Although average hourly earnings in the folding-paper-box industry increased only 0.6 percent between August 1934 and August 1935, average weekly earnings rose 6.4 percent during the 12-month interval. This increase in weekly earnings was due to a gain in working time, which increased from 37.5 hours a week in August 1934 to 39.7 hours in August 1935. The article beginning on page 1588 summarizes the results of a comprehensive survey made by the Bureau of Labor Statistics of wages, hours, and working conditions in the folding-paper-box industry.

Weekly earnings in the rolling-mill departments of the iron and steel industry in March 1935 averaged $23.69 in blooming mills, $22.88 in rail mills, $19.30 in structural mills, $18.04 in plate mills, and $17.68 in billet mills, according to a study recently completed by the Bureau of Labor Statistics. In comparison with the level prevailing in the same month of 1933, these figures indicate that earnings in these departments more than doubled during the 2-year interval. Average weekly working hours in 1935 ranged from 27.5 in billet mills to 35.5 in the blooming mills. Details of the survey for the five rolling-mill departments mentioned will be found in the article beginning on page 1615.

A first degree in engineering is now almost a prerequisite in order to obtain professional status or a position in the engineering field. Postgraduate work in engineering, on the other hand, is important only in a few of the professional classes. These are a few of the outstanding facts revealed by a survey recently undertaken by the Bureau of Labor Statistics at the request of the American Engineering Council. Page 1528.

In 1934 the accident-frequency rate for 1,800 identical establishments in the iron and steel industry ranged from a low of 3.68 per million man-hours of exposure in power houses to a high of 51.58 in foundries. In the preceding year the range was from 4.75 for power houses to 62.30 for electric-furnace departments. Increase in exposure in most of the major departments was accompanied by a decreasing accident frequency rate. Details of the accident experience in the iron and steel industry in 1933 and 1934 are given on page 1496.

Dismissal compensation for railroad employees affected by consolidations authorized under the Emergency Railroad Transportation Act of 1933 is provided for by an agreement reached by committees representing railroad managements and the railroad employees. The agreement, dated May 21, 1936, establishes a system of "coordination allowances" for employees who are displaced or suffer reductions in compensation as the result of such mergers. The allowances are proportionate to length of service and provide, in the event of dismissal, for the payment of 60 percent of the average monthly compensation for periods ranging from 6 months for employees having 1 year and less than 2 years' service up to 60 months for employees with 15 years' service and over. Page 1503.

Cooperative wholesale societies showed a marked increase in business in 1935 as compared with 1934, and effected net savings 75 percent larger than in the previous year. The 12 regional wholesale associations reporting had a combined wholesale business in 1935 amounting to $27,088,163, and had net savings during the year of $776,883, of which sum $407,057 was returned to member societies as patronage refunds and $64,677 was paid in interest on share capital. These societies reported paid-in share capital of more than a million dollars, reserves in excess of $400,000, and total assets of over 3 million dollars at the end of 1935. These data were secured in a recent study made by the Bureau of Labor Statistics. Page 1551.

A compulsory health insurance system was established in the Province of British Columbia by an act passed in March 1936. It is estimated that about 275,000 persons will be covered by the insurance, of whom 110,000 are workers and 165,000 are dependents. The fund will be maintained by contributions by employers and workers, amounting for the workers to 2 percent of their pay and for the employers to 1 percent of the pay roll, with a maximum of 70 cents and 35 cents per week for workers and employers, respectively. Benefits include the services of a physician, prenatal and maternity treatment for women, hospitalization in a public ward for a maximum of 10 weeks for any one illness, and pharmaceutical aid. Page 1507.

Monthly Labor Review

✦ *Published by the*
UNITED STATES BUREAU OF LABOR STATISTICS

Vol. 42, No. 6 WASHINGTON June 1936

Personnel Policies in the Cotton-Textile Industry [1]

THE task of determining the economic status of the workers in an industry does not end simply with an appraisal of wage rates and earnings. Other factors that must be considered include a vast range of employment conditions, such as procedures of hiring and firing, systems of training, working time, methods of wage payment (incentive systems, penalties and deductions, shift differentials, etc.), various welfare plans, and company housing. These factors are especially significant in the cotton-textile industry. For this reason, the President's order of September 26, 1934,[2] not only called for a comprehensive study of earnings in the industry but also for an analysis of working conditions. The results of the Bureau's investigation of wage rates and earnings in the cotton-textile industry were published several months ago.[3]

Like the analysis of wage rates and earnings, the factual basis for the present study was furnished by information collected by field agents from representative cotton mills scattered throughout the important producing States. The mills included in the survey were selected on the basis of size, product, and locality. In all, 188 mills employing more than 100,000 workers, over a fourth of all wage

[1] Prepared by Frances Jones, of the Bureau's Division of Wages, Hours, and Working Conditions.

[2] Executive Order No. 6858, creating the Textile Labor Relations Board. Sec. 8 of the order reads: "The Bureau of Labor Statistics shall prepare a comprehensive report on the actual hours of employment, earnings, and working conditions in the textile industry. The Bureau shall also make an investigation upon and a report of the different types of work performed by the various types of labor in such industries, the actual wage rates paid for the various classifications of work, and the extent to which differential wage rates apply to the different skills."

[3] See mimeographed Textile Report, Pt. I, Wage Rates and Weekly Earnings in the Cotton Goods Industry from July 1933 to August 1934, second edition with minor corrections, Feb. 4, 1935. A summary of this report appeared in the Monthly Labor Review, March 1935 (pp. 612-625). See also Historical Review of Wage Rates and Wage Differentials in the Cotton Textile Industry, Monthly Labor Review, May 1935 (pp. 1170-1180).

earners engaged in the industry, were covered by the canvass.[4] Not all of the mills were able to supply precise information on each of the questions. It is believed, however, that sufficient data were collected to give a fair cross section of certain prevailing practices in the cotton-textile industry. The scope of the report is limited by the fact that the basic data were obtained from interviews of plant executives in charge of personnel.

Occupational Characteristics

BEFORE describing the personnel policies and conditions under which the cotton-textile operatives were working in the fall of 1934, it will be helpful to start with as clear a picture as possible of the type of worker who looks to the industry for his daily bread. Has the cotton-textile worker any outstanding racial characteristics? What is the age and sex composition of the working force? The answers to these questions will furnish a basis for a better understanding of the social problem involved.

Native-born white workers constitute the great bulk of the cotton-mill operatives. In 1930, according to the Bureau of the Census,[5] 288,818 or slightly more than 80 percent of the 358,020 gainful workers employed in the cotton-textile industry were native whites. Of the remaining 69,202 workers, 54,821 (15 percent) were foreign-born whites and only 13,961 (4 percent) were Negroes. Workers of other races (Mexicans, Indians, Chinese, Japanese, Filipinos, etc.) comprised only one-tenth of 1 percent (420) of the total. By contrast, the composition in 1930 of gainful workers in other manufacturing industries, exclusive of cotton textiles, was 68 percent native white, 23 percent foreign-born white, 8 percent Negro, and about 1 percent of other races.

The foreign-born workers engaged in the industry are nearly all concentrated in the northern mills. The racial mixture is especially marked in New England, where most nationalities are represented. French-Canadians are most numerous here, the other important foreign groups, according to reports of the mill owners, being the Poles, Portuguese, and Italians. Among the remaining nationalities found in substantial numbers are the Armenian, Austrian, Belgian, English, French, German, Greek, Irish, Lithuanian, Rumanian, Russian, Scotch, Swedish, and Syrian workers. Moreover, many of the native-born employees are second or third generation offspring

[4] The coverage in the North included 59 plants with 37,748 employees, located in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, New Jersey, New York, and Pennsylvania. In the South the coverage was 129 plants with 68,761 employees in the States of Alabama, Georgia, North Carolina, South Carolina, Virginia, Tennessee, and Texas. According to the Census of Manufactures, there were 379,445 wage earners and 8,866 salaried employees, not including officials, in the industry in 1933.

[5] Fifteenth Census of the United States: 1930, Occupation Statistics, United States Summary, pp. 30 and 31.

of these nationalities, and their language is still that of their immigrant parents.

For the other Northern States included in the survey (New York, Pennsylvania, and New Jersey) the racial make-up of the cotton-mill workers is somewhat less complex. In the New York mills, about two-thirds of the employees are either Poles or Italians, about one-fourth are native born and the rest are of miscellaneous extraction. The Pennsylvania mills reported a predominance of native-born operatives of German extraction, with an admixture of Polish and French-Canadian workers.

In striking contrast with the mixed racial composition of the northern cotton-mill operatives, virtually all of the southern mill workers are native white of native stock. These workers were originally recruited from among the "poor whites" of Piedmont, Coastal Plain, and mountain sections of the South Atlantic States.[6] They were, for the most part, agricultural workers, either tenant farmers or impoverished small farm owners. With them into the mills came their sons and daughters and often their wives. Skilled machinists and a few special types of labor were brought from the North, but these also were largely native-born Americans. Today the working force of the southern mills is made up of the children and grandchildren of the original recuits. It is interesting to note that scarcely any Negro workers are employed there in the productive departments, and only a few of them are used as cleaners, teamsters, and laborers in the opening room, dye house, and yard. The highest proportion of Negro labor reported by any mill surveyed was 18 percent, but this was exceptional, and a number of southern mills had no Negro workers on their pay rolls.

It is also noteworthy that of all employees engaged in the industry in 1930, 38 percent were female workers.[7] In this respect the cotton-textile mills do not differ greatly from other branches of the textile industry. Ever since the introduction of power looms, the textile industry has been the greatest industrial employer of women. This is probably due partly to the fact that in certain occupations, because of their smaller and nimbler fingers, female workers have a definite advantage over males.

In 1930, at the time of the last complete census of occupations, female operatives were relatively more numerous in the northern than in the southern mills. Compared with a working force consisting of 36 percent female operatives in the seven most important cotton-textile States in the South (Virginia, North Carolina, South Carolina, Georgia, Alabama, Tennessee, and Texas), 42 percent of the employees in the mills in the eight most important cotton-textile

[6] Rhyne, Jennings J.: Some Southern Cotton Mill Workers and Their Villages. Chapel Hill, N. C.: University of North Carolina Press, 1930, pp. 65–66.

[7] Fifteenth Census of the United States: 1930.

States in the North (Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania) were female. This difference is in part due to the greater opportunity that the North affords to male workers for higher earnings in other industries.

Apart from a distinctive sex and racial make-up, the age composition of the cotton-mill operatives shows sharp variations from the pattern for workers in other important occupations. The cotton-textile industry has always depended heavily on minors for a substantial segment of its working force. In 1930 the Bureau of the Census reported that more than a fifth of the gainful workers in cotton-goods manufacturing were less than 20 years of age, and the age of 12 percent of the workers ranged from 10 to 17 years. Indeed, more children from 10 to 15 years old were employed in the cotton mills in 1930 than in any other branch of manufacturing. At the other extreme, there are comparatively few places in the industry for workers past the prime of their productive years, less than 4 percent of the workers being 60 years of age or over in 1930. By contrast, of the total working population in 1930 only about 10 percent was less than 20 years of age, 80 percent was between 20 and 60 years of age, and more than 8 percent was 60 years of age or over. For approximately 2 percent, the age was unknown.

Doubtless the proportion of very young cotton-mill operatives was materially modified by the adoption of the code of fair competition for the industry, which prohibited the employment of children under 16 years of age. The effects of this provision are reflected by the fact that the number of children 14 and 15 years of age receiving their first regular employment certificates in 11 of the most important cotton-textile States in 1934 was 70 percent less than in 1932.[8] It is to be noted that three States where cotton-goods manufacturing is important—Pennsylvania, New York, and Connecticut—raised the minimum-age requirement in 1935 to conform with the provisions established by the N. R. A.

Another factor that should be borne in mind in considering the personnel policies that have been adopted by the industry is that the work calls for comparatively few skilled artisans. The place of the skilled craftsman has long since been taken by machine tenders, most of whom can be fitted for their tasks within a few weeks or months.

Finally, it should be noted that only a small proportion of the employers deal with the cotton-textile workers through labor organizations. A study made by the Bureau of Labor Statistics during the spring and summer of 1935 revealed that of 103,875 cotton-mill operatives approximately three-fourths were employed in plants

[8] Monthly Labor Review, December 1935 (pp. 1485-1486).

which dealt with their employers on an individual bargaining basis.[9] Somewhat more than 17 percent of the employees were in plants which dealt with all or part of their employees through trade-unions and more than 10 percent in plants which dealt through company unions. Of these, 2.3 percent were in plants dealing through both types of unions.

Hiring and Firing Policies

SCIENTIFIC personnel management is reported by very few mills. Employees are known to the foremen or overseers, who are responsible for hiring, placement, and discharge, as well as for lay-offs in periods of slack production and recalling employees to work when production increases. New labor is recruited from among the relatives and friends of the workers. A parent will bring sons or daughters into the mill and will often even supervise their training; a girl will tell the foreman that she has a friend with textile experience; a family will invite a relative to bring his own family to live with them and work in the mill. All plants reported that the bulk of their labor was recruited either in this way or through the application of unknown persons with experience directly to the employing official. Only skilled jobs and some office positions were filled through private employment offices and trade-journal advertisements. A few mills sometimes used Government employment offices for obtaining their common labor. During the recent years of severe unemployment, several mills have been taking on as employees, whenever possible, local residents on welfare lists.

As a general rule application forms are not used. At some mills, applicants are interviewed by the foremen, and if they are acceptable, their names are filed and they are called when needed. At others, applicants assemble on the "spare floor", and any foreman who needs additional workers goes there, selects them by personal interview, and puts them to work immediately.

In 117 mills—nearly two-thirds of the 181 mills reporting on this point—the foreman was either entirely responsible for the hiring of workers or he had charge of it under the general supervision of the superintendent or manager. Hiring was in the hands of the superintendent, manager, owner, or other ranking official in 50 (27.6 percent) of the mills, which were usually the smaller ones. Only 14 mills (7.7 percent) had employment departments. Of these, 9 were in Southern and 5 in Northern States. Most of the mills having employment departments employed 750 or more workers—a large number for the cotton-goods industry.

The fact that foremen are generally responsible for the labor force does not necessarily mean that they are always free to follow their

[9] Monthly Labor Review, December 1935 (p. 1456).

own preferences and prejudices. In many mills they evidently do have a comparatively free hand, especially in the matter of hiring. In others they are required to follow certain broad company policies that have been definitely established or tacitly understood, with regard to citizenship, residence, age, family responsibility, experience, and other factors.

In the South local people are ordinarily preferred, and many mills insist on native-born Americans. As the foreign-born population is relatively small in the southern textile States, this does not limit seriously the job opportunities of local residents, but it undoubtedly serves to prevent the migration of labor from the northern mill towns. Only one northern mill barred noncitizens, although four reported that citizens were customarily given preference. Six northern mills, or about 10 percent of those included in the survey, reported a speaking knowledge of English to be a requisite for employment.

Virtually all of the important cotton-textile States prohibit the employment of minors under 14 years of age.[10] Under the provisions of the N. R. A. code adopted by the cotton-goods industry, the minimum was raised to 16 years. A hiring age above the code and State minima, however, was reported by 43 mills, or approximately 23 percent of the establishments covered by the survey. These comprised 28 percent of the southern and 12 percent of the northern mills. In most of these the minimum established was 18 years, but four mills in Alabama had a 17-year minimum, and one mill in North Carolina reported a minimum hiring age of 20 years.

It is difficult to establish practices with reference to maximum age-hiring policies without more detailed investigation than was possible. Most employees alleged that age as such was not important, and reported that the ability, health, and physical appearance of the applicants were the primary considerations in hiring. More or less rigid rules regarding maximum hiring ages were, however, reported by 35 mills, 5 of which were northern and 30 were southern plants. One spinning mill did not ordinarily employ anyone over 30 years of age. For the other mills, the usual maximum hiring ages ranged from 40 to 65 years, with 50 years the limit most frequently reported. Three of the mills reported a lower maximum for women than for men. Several employers, although fixing no maximum, freely admitted that they prefer young workers.

An important factor considered in hiring during recent years, according to the statements of the mill operatives, has been the applicant's need for the job. Almost a third of the mills studied, many for businesslike reasons, claimed that they usually gave careful consideration to the applicant's family responsibilities. A

[10] In Texas the minimum is 15 years, and in Rhode Island it is 15 during school hours. North Carolina prohibits night work for girls under 18, Pennsylvania for girls under 21, and Massachusetts for boys under 18 and girls under 21.

number of employers considered it helpful toward increasing the stability of the working force, thus reducing labor turn-over. Others adopted the policy primarily because the dependent minors in large families form a potential labor pool for the future. Several of the employers preferring applicants with dependents, however, avoided hiring those with more dependents than could be supported at the prevailing wage level. This practice was ascribed partly to a belief that too many dependents are a handicap to making good operatives and partly to limited housing facilities, and possibly housing costs, which make it desirable to have more than one mill operative to each house.

Previous satisfactory service in the mill often outweighs all other factors in hiring an applicant. This is especially significant when rebuilding a labor force after a period of restricted operation. Slightly more than three-fourths of the mills covered made it their policy to rehire, in preference to other applicants, former employees who had been laid off or had left without prejudice. In fact, such employees were often notified by the mill when work was again available, although in some cases the men were expected to keep in touch with the employment office, which gave them preference if they were on the spot when a job was available.

Textile experience is also an important asset for an applicant. However, a number of establishments favored natives of the community to the extent that they preferred training local hands to hiring experienced help from the outside.

Other important factors that influence the selection of employees at some mills include character references; the health, education and race of the applicants; their willingness to live in company houses; whether or not they are members of a trade-union; and their relationship to persons already employed. Medical examinations at hiring were required by 25 of the mills.

The procedure followed when it is necessary to curtail the working force is somewhat more standardized than the hiring policies. As a general rule, the value of an employee to the company is the primary consideration. In fact, 27 of the mills reported that ability, efficiency, and loyalty were the only factors considered when lay-offs were necessary. A large proportion of the employers, however, stated that they recognized claims of family responsibility and long years of service. With the exception of ability, more employers were influenced by the family responsibility of the workers than by any other circumstance, this factor being taken into consideration by 134 of the mills when it was necessary to reduce the working force. Length of service was a factor at two-thirds of the mills, ranking first in importance at some establishments, but at others it held second or third place after ability and family responsibility.

Employees living in company houses were often the last to be laid off. The policy of giving such workers important, if not major, consideration was followed by at least 23 of the 188 mills. Seven others favored village residents but did not specify company house occupants.

Advance notification of lay-off is the policy at the majority of the mills. Of those included in the survey, 114 followed this practice. Slightly less than a third of the 188 mills gave 1 week's notice, although 4 of these gave advance notice only to office and supervisory employees. Notice of from 1 to 2 weeks was given by approximately 10 percent of the mills, and one mill notified employees from 2 weeks to a month in advance by posting notices.

A dismissal wage for permanent lay-offs was given in 11 of the mills covered. These payments were usually limited to office employees, foremen, or other salaried employees in key positions. One mill, however, gave a dismissal wage to all long-service operatives, and 2 others gave it to such workers at the discretion of the officials. Four of the eleven mills gave 2 weeks' pay, three gave 1 week's pay, one gave from 1 to 2 weeks' pay, one gave an indefinite amount, and two did not specify the amount. At least two other mills allowed the dismissed employees to live in company houses until they found work. One mill endeavored to place laid-off operators in other positions.

Discharge of employees for cause does not appear to be a serious factor in the cotton-textile industry. During the 5-year period, 1930–34, the annual discharge rate ranged from 3.23 to 6.3 per 100 workers.[11] The majority of the discharges were for inefficiency, according to the reports of mill managers. Other causes reported were drunkenness, personal conduct (nature not specified), infraction of rules, fomenting discord, dishonesty, and insubordination.

Just as in hiring and selection for lay-off, the foreman or overseer is usually the company official who discharges an employee for cause, although his action often requires the approval of a higher official. At 58 of the 92 mills that reported on this point the foreman was responsible for firing. At the remaining 34 mills the foreman's recommendations were subject to the approval of a higher official, usually the superintendent. At only 9 of the 34 mills did the higher official do the actual firing, his participation being limited to recommendations for remedial measures, interviewing the offender before giving him another chance, approving the foreman's recommendation for discharge, or hearing appeal. One company required that the written discharge be signed by the secretary or general superintendent. Another company with several mills made the foreman responsible for discharges, but it required the filing of an affidavit, describing the cause of the discharge, in the central office. Provisions for appeal,

[11] Based on data obtained from the Bureau's Division of Construction and Public Employment.

usually by informal presentation of the case to a higher official, were provided by 78 mills of the 120 that reported on this point.

Training Systems

COTTON-MILL workers are ordinarily trained in the mill, under the supervision of experienced operatives, at learners' wages or sometimes without pay. For several years, however, trained operatives have been so plentiful that many mills have been hiring only experienced workers. At the time this survey was made, 100 of the 188 mills included the training of learners in their industrial relations program. The practice is somewhat more prevalent in the southern than in the northern mills, which is no doubt due in part to the preference of some of the southern mills for local people even though inexperienced.

In August 1934, the mills supplying wage data reported that 402 learners and apprentices were employed by them. These workers constituted less than 0.5 percent of the total number of employees covered. Although learners and apprentices are here considered together, it is known that the proportion of apprentices in the skilled mechanical trades in the mills surveyed is negligible. Learners were reported in virtually all occupations in the productive departments, those in the more skilled occupations being promoted from less skilled work.

Learners in the cotton-textile industry are nearly always paid less than the entrance rate for the occupation, even in occupations requiring little or no skill. The cotton-textile code provided for the continuation of this practice, but it limited the apprenticeship period to 6 weeks, after which the employee, if retained, was guaranteed the minimum wage of 30 cents an hour in the South and 32½ cents an hour in the North. The prevailing practice prior to the adoption of the code was to continue the payment of a nominal wage until the mill management considered them qualified to earn the prevailing wage.

At the time of the survey, some of the southern mills were still employing learners without pay. This practice was reported definitely by six southern mills, and it was also indicated in the reports of at least five more. These mills were located in North Carolina, South Carolina, and Georgia. One Connecticut mill reported that, prior to the code, learners were employed without pay until they were considered qualified. These unpaid learners were usually the sons and daughters of mill operatives and were started on minor jobs, such as sweeping and doffing, being trained for semiskilled jobs by their parents or other operatives.

The pay of learners, as determined from the company pay rolls obtained in this survey, ranged from 7½ to 50 cents per hour. At some mills the rate was not fixed but varied with the financial cir-

cumstances of the worker hired. In 31 mills the learners were paid at piece rates, sometimes only half the regular rate. Two mills guaranteed minimum hourly rates, one 7½ cents and the other 12½ cents an hour. The code minimum rate, or higher, was earned by 33 percent of the northern learners and 45 percent of the southern learners. The learners earning more than the code minimum were probably regular employees who were learning new work.

Continued employment at the end of the training period was not guaranteed, but if the learners became proficient enough to earn the prevailing wage they were given consideration when vacancies occurred.

A formal course of training for weavers, spinners, loom fixers, and foremen, consisting of practical work in the mill, with class work and lectures on improved methods, was reported by several mills.

Working Time

UNDER the code the maximum working time for all employees in the cotton-textile industry, "except repair-shop crews, engineers, electricians, firemen, office and supervisory staff, shipping, watching and outside crews, and cleaners", was 40 hours per week. This provision was generally met by establishing an 8-hour day and a 5-day week. Before the code was adopted, the normal full-time week ranged from 48 to 60 hours and the daily working time from 9 to 12 hours.

With the working week reduced to 40 hours, many mills that had previously been working one long shift went on a double-shift basis. Of the 188 mills covered in 1934, more than 90 percent were working double shifts, and some departments at several mills were operating three shifts. By contrast, in 1930 only slightly more than half of the mills reporting to the Bureau of Labor Statistics were working night shifts.[12] Double-shift operation was somewhat more general in the southern than in the northern mills, but this difference was not so marked in 1934 as in former years.

In 1934, nearly 94 percent of the shifts were 8 hours per day and 5 days per week. A few mills reported shorter shifts, ranging from 5¾ to 7½ hours per day. Shifts of less than 8 hours, however, usually applied only to female workers or to particular occupations. Some mills, which were working exclusively on short shifts, operated 6 days a week. Two mills operated 10 hours a day and 4 days per week.

Work in the cotton mills usually begins at 6 or 7 o'clock in the morning. The first shift works until 2, 3, or 4 o'clock in the afternoon, when the second shift begins and continues until 10, 11, or 12 o'clock at night. The majority of the third shifts begin at 10 p. m. and end at 6 a. m.

[12] U. S. Bureau of Labor Statistics. Bulletin No. 539: Wages and Hours of Labor in Cotton Goods Manufacturing, 1910-30. Washington, 1931, pp. 17-18.

At the time this study was made, night work (between 10 p. m. and 6 a. m.) for women was prohibited in five of the States covered, namely, Connecticut, Massachusetts,[13] New Jersey, New York, and Pennsylvania. In these States some mills did not employ women on the night shifts, but others simply shortened the hours for women to conform to the law.

The working day of employees on shifts of the same length varied with the length of the lunch period allowed. A number of mills worked two 8-hour shifts, from 6 a. m. to 2 p. m. and from 2 p. m. to 10 p. m., with no suspension for lunch or rest. Other mills began work at the same time and had shifts of the same length, but allowed lunch periods of from 30 minutes to an hour. At these mills the night shift was ordinarily on duty until 11 or 12 p. m. Often the day shift was allowed a suspension for lunch but no time off was allowed the second and third shifts. Occasionally, only the second shift stopped work for lunch. In some mills only certain departments suspended work for lunch. In a few mills in Massachusetts and Pennsylvania, only the female workers were given lunch periods. Pennsylvania, Massachusetts, and Maine have legal provisions for lunch or rest periods for women.

Suspension of work for meals is practiced much more extensively in northern mills than in those of the South. In more than one-half of the southern mills, and in more than 80 percent of those reporting from Alabama and Georgia, employees were on continuous duty for the full shift. On the other hand, only 9 of the 59 northern mills followed this practice.

The length of the lunch period varied not only between mills but also between shifts in the same mill. Approximately a third of the lunch periods in the 108 mills allowing them were 1 hour, a little more than a fourth were 45 minutes, slightly less than a fourth were 30 minutes, a tenth were 15 minutes, and the remainder ranged from 20 to 40 minutes. The 15- and 20-minute lunch periods were for the most part applicable only to the night shifts, and, at some of the mills, only to the men, the women being given a longer period.

Vacations for mill operatives were allowed by approximately 25 percent of the 188 mills studied. Only two of these mills, however, gave the operatives paid vacations. One of these mills did not report conditions of eligibility, but the other required 1 year's service, and an annual record of not more than 80 hours lost time for males and 200 hours for females, including sick leave. The majority of the others were shut down for 1 or 2 weeks, often for a week in the summer and another week at Thanksgiving or Christmas. Although no

[13] In Massachusetts the law prohibits night work for women in textile mills between the hours of 6 p. m. and 6 a. m., but effective July 1, 1933, the legislature empowered the commissioner of labor and industry to advance the limit to 10 p. m. during the life of the code.

direct pay was given for this time, it is customary for some of the mills which provide housing accommodations to give free rent during the shut-down. Some of the mills which did not provide vacations by means of the mill shut-downs granted a week or two on application, without pay, sometimes only after a specified length of service.

A much larger proportion of the mills, approximately 70 percent, gave vacations with pay to salaried employees. Of these approximately 24 percent gave vacations of 1 week and a third gave vacations of 2 weeks. The usual service requirement was 1 year, although some mills required only 6 months' service and others none.

Legal and local holidays, when observed, are without pay except for salaried employees. One exception to this was found in a Georgia company, which celebrated its "founder's day" by giving all employees a paid holiday and picnic. Usually the mills closed and gave all employees, with the exception of watchmen and the necessary maintenance men, the benefit of holidays.

The northern mills observed more holidays than the southern mills. Christmas was observed by all mills. Labor Day and July 4 were also observed by all of the northern mills studied, and New Year's, Decoration Day, and Thanksgiving by the majority. Observance of Armistice Day and Columbus Day was reported by about half of the northern mills, and Washington's Birthday by approximately a third. Observance of July 4 was reported by approximately 88 percent of the southern mills, but less than 40 percent closed on Thanksgiving Day, only about a fifth on Labor Day, and the other legal holidays (including New Year's Day) were observed by only a few of the southern mills.

There is no payment for periods of illness, except in the case of salaried employees and except as in some mills factory employees are protected by health insurance or mutual sick-benefit schemes.

Methods of Wage Payment

THE prevailing methods of paying cotton-mill operatives were straight time and straight piece rates. Time rates were paid to indirect, supervisory, and some productive labor. Piece rates were found in virtually all occupations in production departments, but were usually paid to slubber and speeder tenders in the carding department, spinners, doffers, and spoolers in the spinning department, and weavers and battery hands in the weaving department. Only one mill paid no piece rates, its entire operation being under the Bedeaux system [14] of wage payment. One other mill was installing the Bedeaux system, but it had not yet extended the scheme to all departments.

[14] Under this system, the production operatives receive a bonus amounting to 75 percent of the value of any production above the standard for which their hourly rates are set, and the indirect workers share the remaining 25 percent.

Bonuses, based either on the amount or quality of production, were paid certain occupations by 29 of the mills. Loom fixers were eligible for bonuses at 19 mills and weavers at 15. Seven of the mills also extended bonus privileges to certain other workers in the weave shed. For example, two mills paid a production bonus to battery hands on automatic looms. One gave extra compensation to creelers, the basis of which was not reported; one paid a bonus to smash hands and one to warp tiers, both based on production; and four mills paid a bonus to second hands, based on weavers' production. One of these also extended the bonus system to inspectors in the cloth room. Bonuses, particularly those for quality, were often given only for work on certain types of materials.

The bonuses for weavers were frequently a percentage of their weekly earnings at piece rates, graduated according to the extent to which production exceeded the standard set as normal. Other mills paid a flat rate or a flat percentage as a bonus for attaining standard production. In several mills the standard was the proportion of second-grade cloth produced, or a combination of this with a production standard. Loom fixers' bonuses were similarly computed, their efficiency being based on the amount or quality of production of the looms under their care.

Bonuses in the yarn department were usually given to operators for finding faulty work, such as singles or doubles, drop flies, slubs, or grease spots. The only production-bonus system reported in the yarn department was in a mill which paid slubber tenders and intermediate and fine-frame tenders a flat-rate bonus per week for production above the standard number of hanks. Six mills paid bonuses to one or more of the following occupations in the yarn department: Spinners, doffers, twisters, winders, and slubber and speeder tenders.

Award of prizes to the outstanding operatives was the practice in four mills. Two gave weekly prizes to the highest ranking weavers and loom fixers, one on the basis of quality and the other on the amount of production; and two gave weekly prizes to spinners who found the most faulty roving. Two mills gave Christmas bonuses to all employees.

Just as an employee may increase his earnings by bonuses, he may also be penalized for spoilage and production of inferior quality, although no penalty assessments for amount of production below standard were reported. At least 20 of the mills penalized operatives for poor work, but 8 of these also paid bonuses. These penalties were usually not automatic but levied at the discretion of the foreman.

Wage differentials in favor of night shifts in certain productive departments were paid by 11 of the 173 mills that worked night shifts, and 1 other mill with no extra shifts for productive workers paid boilerhouse employees a higher rate for night work. The

amount of the differential for productive workers was approximately 5 percent in 4 mills and 10 percent in 7, 1 of which increased the differential for the third shift. Two of these mills paid the differential for the third shift only. The differential at one mill was in the form of a lowering of the production standard on which bonus earnings were based. Some of the productive occupations which benefited from the shift-wage differentials were weavers, loom fixers, spinners, twisters, card grinders, card strippers, and comber tenders. Five mills extended the differential to all employees on the night shift.

Insurance

INSURANCE is one of the most common measures adopted by the cotton-textile mills as a means of providing for the welfare of their employees. Slightly more than half (50.5 percent) of the mills scheduled indicated that their employees were protected by some type of insurance. These mills employed 44.3 percent of the employees covered. Of the 129 southern mills canvassed, 72 (55.8 percent) reported that an insurance plan was in force. This compares with 23 (39.0 percent) of the 59 northern mills that were included in the survey. The majority of the plans in both the North and South were for group life insurance. (See table 1.) A few covered disability, nonoccupational accidents, or sickness; and two provided old-age pensions. Another company established a fund

Table 1.—Group Life Insurance in Cotton-Textile Mills, 1934

State	Total number of mills in survey	Number of mills, with classified size of labor force, having insurance							
		Total	50 and under 100 employees[1]	100 and under 250 employees	250 and under 500 employees	500 and under 750 employees	750 and under 1,000 employees	1,000 and under 5,000 employees	Not known
North:									
Connecticut	11	6						1	5
Maine	3	1						1	
Massachusetts	24	6					2		4
New Hampshire	4	3		1		1	1		
Rhode Island	10	1			1				
New Jersey	2	2			1	1			
New York	2	2							2
Pennsylvania	3	2		1	1				
Total	59	23		2	3	2	3	2	11
South:									
Alabama	21	14		7	5	2			
Georgia	21	12	1	5	1	2	2	1	
North Carolina	48	21	3	7	8				3
South Carolina	29	22		4	5	2	4	7	
Virginia	3	1					1		
Tennessee	3	2				1	1		
Texas	4	0							
Total	129	72	4	23	19	7	8	8	3
All States	188	[2] 95	4	25	22	9	11	10	14

[1] No mills with fewer than 50 employees reported group-insurance plans.
[2] These mills belonged to 58 different companies.

for the payment of death benefits. Although most plans call for contributions from the employees, several mills paid the entire cost of the insurance. In at least two mills the workers paid the whole premium.

Safety and Health

ABOUT 70 percent of the mills covered had organized safety programs. These programs varied widely. Some consisted of little more than the use of safety posters and periodic inspections by employees designated for the purpose. Others provided for a full-time director of safety and management and employee safety committees, which make recommendations for the adoption of safety practices and the elimination of hazards and direct safety education. The more progressive mills have stimulated the interest of the workers by means of departmental contests, suggestion boxes, prizes, and penalties. A number have complete first-aid clinics with a doctor or nurse in attendance. The most common type of organization placed upon committees of foremen the major responsibility for the execution of the safety program.

Many companies take an active interest in the health of their workers. This is particularly important in the South, where large numbers of workers in isolated mill villages are often wholly dependent on their employers for adequate medical attention. Approximately a third of the southern mills covered assumed at least a part of the responsibility for providing medical services for employees and their families. These services included the following: Health officers; visiting nurses to advise families in matters of health and sanitation and to give free attention during illness; physicians, whose services were sometimes free but more often were furnished at low cost; free physical examinations, inoculations, and vaccinations; medical, dental, and baby clinics, free or at low cost; and hospitalization, often at reduced rates.

At several southern mills health clubs were organized, which usually, but not universally were under the supervision of and aided financially by the management. The members paid a flat weekly rate, which often varied with the size of the worker's family. This entitled the employees to one or more types of services. At some of the mills membership in the health clubs was compulsory but at others it was optional.

Health-promotion work in the majority of the northern mills was restricted largely to a mill dispensary or first-aid service. A few of the northern mills had clinics and the privilege of free consultation was sometimes extended to the families of employees. Other mills employed visiting nurses. In a few mills health protection was provided through insurance and mutual benefit associations, sometimes with company aid.

Important in mill welfare programs are their recreational activiti centering in company subsidized community houses and athlet fields. These are stressed in urban communities among foreig workers of the North as well as in southern mill villages. Also, i mill villages, the company sometimes subsidizes schools, financin longer terms than the State provides for and cooperating in the suppor of vocational night schools.

Company Housing

COMPANY housing is a more important factor in the cotton-textil industry than in most other manufacturing industries. It had it origin in the isolation of many mills from centers of population. A the time that this study was made, rents charged for company house were an issue because it was alleged by some that the gains mad through hourly wage increases under the codes were lost throug rental increases.

It was not possible in this study to appraise the economic value o the addition to wages through rents at less-than-market rates. T do so involves more careful real-estate appraisals than the time avail able for the study would have allowed. Furthermore, even a casua inspection of the housing indicates the impossibility of generalization Some mill villages consist of excellently constructed dwellings, rente at a return lower than commercial enterprise would offer. Other are woefully lacking in all facilities and offer inadequate shelter Such differences can be described in fairness only on a mill-by-mil basis. Subject to these limitations, the following data are presente on the extent of company housing, rentals, and changes in rent.

Table 2.—Housing Facilities Reported by Cotton-Textile Mills, 1934

State	Total number of mills covered	Number of mills with housing	Total number of employees scheduled	Number of employees in mills with housing	Total number of houses reported	Average weekly rental per house
North:						
Connecticut	11	7	4,777	3,696	1,002	$1.9
Maine	3	2	5,656	4,794	98	2.7
Massachusetts	24	3	17,532	2,538	232	2.8
New Hampshire	5	4	2,728	1,849	216	1.9
New Jersey	2	2	823	823	169	2.0
New York	2	0	888	0	0	
Pennsylvania	3	2	584	480	29	3.5
Rhode Island	10	5	5,495	2,387	280	2.4
Total	60	25	38,483	16,567	2,026	2.2
South:						
Alabama	21	21	7,510	7,510	2,114	1.2
Georgia	23	20	13,360	12,067	3,045	1.2
North Carolina	48	48	17,859	17,859	5,464	.9
South Carolina	29	29	21,335	21,335	6,582	1.0
Tennessee	3	3	2,503	2,503	138	3.1
Texas	4	3	705	489	257	1.7
Virginia	3	2	6,001	5,752	868	1.6
Total	131	126	69,273	67,515	18,468	1.1
All States	[1] 191	151	[1] 107,756	84,082	20,494	1.2

[1] Includes 3 mills, employing 1,247 workers, which were included in the housing tabulations only.

Unfortunately, except for a few southern mills, the survey failed to reveal the proportion of employees living in company-owned houses.[15] Information furnished by 20 mills (10 in North Carolina, 9 in South Carolina, and 1 in Alabama) indicates that in these mills 78.5 percent of the southern mill operatives live in company-owned dwellings. One mill provided living quarters for 40 percent of its employees, 5 mills for more than 90 percent of the operatives, and 14 mills for 75 percent or more.

The proportion of the working force housed by most northern mills is much lower. One northern mill with over 100 employees, for example, reported that only 8 lived in company-owned dwellings. Another, with more than 200 employees, had operatives living in only 9 houses. Because of changed conditions, many northern mills are disposing of their residential properties.

The typical southern mill dwelling is of the frame bungalow type. The four-room cottage was predominant among those surveyed, comprising 44 percent of the total. Slightly more than a fourth were three-room cottages, and about 11 percent had five rooms. The average number of rooms per house was 3.8, and half of the houses were equipped with modern or semimodern sanitary facilities. Approximately 80 percent of the houses rented for less than $1.50 per week, and 75 percent belonged to mills charging an average weekly rental of 35 cents or less per room. The average house rental was $1.24 per week.

The rent charged by approximately 56 percent of the southern mills included electric current, although some of the companies limited the amount of current thus furnished. Another 20 percent of the mills charged a nominal rate for electric current. In the remaining cases, the houses were either not wired for electricity or it had to be obtained from outside sources. An extra charge for water was made by only two companies. Other facilities and services furnished with company housing, usually without additional cost, were garden plots, fertilizer, seed, pasture land, and stalls or sheds for cows. Garages were included in the house rent by some mills and charged for by others. One mill furnished free laundry service, and another provided this service at a nominal charge. A few provided ice and milk at cost.

Mill houses in the North are commonly of the two-story, six-room, frame type, either semidetached or row dwellings. Six-room houses comprised 36 percent of those covered, five-room houses 26 percent, and seven-room houses 21 percent. The average was 5.9 rooms per house. Approximately 50 percent of those reported in this survey had modern sanitary conveniences. The rental per room varied

[15] A study of company housing, made by the Bureau of Labor Statistics in 1916–20, showed that 71 percent of the workers employed by 48 mills in 5 Southern States were housed by the employing company.

from 15 to 80 cents per week, and the rental per house ranged from 5[illegible] cents to more than $7 per week.

In only a few northern mill houses was electricity included in the rent or furnished by the company. Two mills furnished heat to a few of their houses, and more than half of them provided water without additional charge. One furnished coal and wood at cost plus delivery charges, several provided garden space, and one delivered milk at cost.

Table 3 shows the distribution of company houses by size and weekly rental in both the North and South.

Table 3.—Weekly Rentals of Company Houses in Cotton-Textile Industry in the North and South, 1934

Weekly rental	Number of houses of classified rentals, having—								
	2 rooms	3 rooms	4 rooms	5 rooms	6 rooms	7 rooms	8 rooms	9 rooms and over	Total
North [1]									
$0.50 and under $0.75	1	1	2						4
$0.75 and under $1.00	1	9	34	75					119
$1.00 and under $1.25		3	21	77	47	5	3		156
$1.25 and under $1.50		2	7	185	28	78	11	3	314
$1.50 and under $1.75			22	51	67	12	2	2	156
$1.75 and under $2.00			10	6	35	8	6	2	67
$2.00 and under $2.25		1	8	19	27	92	14	7	168
$2.25 and under $2.50	6	4	6	27	63	100	5	1	212
$2.50 and under $2.75		2	4	21	56	21	7		111
$2.75 and under $3.00	1		3	16	72	35	9	15	151
$3.00 and under $3.25	5		10	5	242	39	11	2	314
$3.25 and under $3.50		3		5	15	12	9	4	48
$3.50 and under $3.75		1	2	6	28	7	7	4	55
$3.75 and under $4.00				34	7	2	2		45
$4.00 and under $4.50			5		8	6	5	4	28
$4.50 and under $5.00			2	1	17	4	3	4	31
$5.00 and over					17	8	1	4	30
Total	14	26	136	528	729	429	95	[2] 52	2,009
South [3]									
Under $0.25	4	1							5
$0.25 and under $0.50	339	400	5	2	2				748
$0.50 and under $0.75	757	1,255	808	41	3	1			2,865
$0.75 and under $1.00	187	1,529	2,229	305	230	11		1	4,492
$1.00 and under $1.25	303	951	2,238	228	213	49	6		3,988
$1.25 and under $1.50	56	245	1,252	508	176	38		2	2,277
$1.50 and under $1.75		385	433	224	263	4	6	3	1,318
$1.75 and under $2.00		121	191	192	159	23	39	2	727
$2.00 and under $2.25	3	3	495	74	40	23	14	1	653
$2.25 and under $2.50		2	175	124	14	3	7		325
$2.50 and under $2.75			59	99	68	4	2		232
$2.75 and under $3.00	24		6	5	18	5	1	1	60
$3.00 and under $3.25		34	18	59	73				184
$3.25 and under $3.50			2		1			1	4
$3.50 and under $3.75			10	1	1		1	1	14
$3.75 and under $4.00			101	36	1	4			142
$4.00 and under $4.50					16				16
$4.50 and under $5.00				4		8	13	1	26
$5.00 and over					3	11	2	1	17
Total	[4] 1,673	4,926	8,022	1,902	1,281	184	91	[4] 14	18,093

[1] Covers 24 mills. Complete data were not reported for 1 mill.
[2] 24 houses have 9 rooms, 10 have 10 rooms, 11 have 11 rooms, 6 have 12, and 1 has 13 rooms.
[3] Covers 121 mills. Complete data were not reported for 5 mills.
[4] 12 houses have 1 room.
6 houses have 10 rooms, 1 has 11, and 2 have 12 rooms.

It has long been customary for cotton-textile mills in both the North and South to give free rent during mill shut-downs. A number of mills reported that this was still their practice, some stating that "short" time (20 to 30 hours per week) also entitled employees to free rent. One Georgia mill had not charged its employees with house rent since 1930, but it reestablished the charge late in 1934.

According to the rental data obtained for July 1933, August 1933, and August 1934, there was no change in the general level of company housing charges after the introduction of the code. In fact, a comparison of the results of this survey with those of the Bureau's survey of 1916–20 indicates that during the 18-year period there has been little change other than could be accounted for by the advance in modernization that has taken place. The average cost per room changed [16] between July 1933 and August 1934 for only six mills, of as many companies, three of which showed an average mill decrease in cost per room of from 7 to 9 cents, and three showed an increase of from 10 to 25 cents per room per week. One increase occurred in the July 1933 period, the other increases and two of the reductions occurring subsequent to August 1933. The sixth mill showed a reduction between the July 1933 and August 1934 periods, there being no August 1933 data for comparison. These changes do not take into account the mills which were not charging any rent during the August 1934 pay period due to curtailed operation.

[16] Only changes in the mill averages of as much as 5 cents per room per week were considered.

Accident Experience in the Iron and Steel Industry, 1933 and 1934

REPORTS received by the Bureau of Labor Statistics from 1,800 departments of identical firms in the iron and steel industry indicate that the frequency rate of industrial accidents in this industry increased slightly, from 19.49 in 1933 to 19.65 in 1934. At the same time, the severity rate increased from 2.34 to 2.47. The year 1934, therefore, showed not only proportionately more accidents than did 1933, but also more serious accidents, as gaged by time lost.[1] These increases were accompanied by an increase in employment in the reporting identical establishments from about 350,000 workers in 1933 to over 400,000 in 1934.

Experience of Industry as a Whole

SUMMARY data comparing the accident experience of identical establishments[2] in 1933 and 1934 are shown in table 1.

Table 1.—Accident Frequency and Severity Rates for Identical Establishments in the Iron and Steel Industry, 1933 and 1934

Item	1933	1934
Total man-hours of exposure (thousands)	572,770	662,800
Total number of lost-time accidents	11,166	13,024
Total days of disability	1,339,428	1,639,081
Accident frequency rate	19.49	19.65
Accident severity rate	2.34	2.47

The detailed experience of each of the individual departments is shown on tables 2, 4 and 5. Table 2 shows the details of arriving at accident frequency and severity rates for each of the 31 departments. Man-hour increases are shown for all but five departments, and of these only the unclassified rolling mills and wire drawing departments are of considerable size.

[1] The accident frequency rate is the average number of accidents per million man-hours worked. The accident severity rate is the average number of days lost per thousand man-hours. The standard time-loss ratings for fatalities and permanent disabilities are given in Bulletin No. 276: Standardization of Industrial Accident Statistics.

[2] The policy of restricting accident statistics to data furnished by identical firms for 2 successive years, although tending to narrow the sample somewhat, results in a compensating gain of stricter comparability.

Table 2.—Accident Frequency and Severity Rates in the Iron and Steel Industry, in Departments of Identical Establishments, 1933 and 1934

Department	Number of departments	Man-hours worked (thousands)		Number of injuries		Total time lost (days)		Accident frequency rate		Accident severity rate	
		1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
All departments	1,800	572,770	662,800	11,166	13,024	1,339,428	1,639,081	19.49	19.65	2.34	2.47
Blast furnaces	54	17,184	19,169	265	286	81,310	110,736	15.42	14.92	4.73	5.78
Bessemer converters	13	3,679	4,201	36	33	15,274	10,419	9.79	7.86	4.15	2.48
Open-hearth furnaces	67	28,612	31,840	393	422	117,011	139,159	13.74	13.25	4.09	4.37
Electric furnaces	48	1,958	7,911	122	381	1,397	13,382	62.30	48.16	.71	1.69
Foundries	179	38,015	48,289	1,631	2,491	116,087	151,514	42.90	51.58	3.05	3.14
Bar mills	13	3,866	4,457	42	60	3,392	2,774	10.86	13.46	.88	.62
Heavy rolling mills	53	34,504	38,786	354	366	59,106	71,921	10.26	9.44	1.71	1.85
Plate mills	24	7,799	9,422	106	149	25,753	52,356	13.59	15.81	3.30	5.56
Rod mills	22	5,520	4,826	76	36	30,772	24,904	13.77	7.46	5.57	5.16
Sheet mills	42	46,281	47,015	939	687	108,209	112,103	20.29	14.61	2.34	2.38
Tube mills	39	28,769	39,030	360	431	37,144	45,238	12.51	11.04	1.29	1.16
Unclassified rolling mills	71	29,956	28,275	572	525	52,245	56,287	19.09	18.57	1.74	1.99
Fabricating shops	122	14,521	21,152	604	845	39,036	81,044	41.60	39.95	2.69	3.83
Forge shops	196	30,053	41,578	906	1,367	71,588	97,228	30.15	32.88	2.38	2.34
Wire drawing	45	18,114	16,739	238	216	41,955	43,798	13.14	12.90	2.32	2.62
Electrical	55	9,434	10,588	70	49	28,426	32,299	7.42	4.63	3.01	3.05
Mechanical	129	49,729	56,701	568	592	123,081	145,225	11.42	10.44	2.48	2.56
Power houses	22	2,734	3,258	13	12	672	10,572	4.75	3.68	.25	3.25
Yards	72	12,384	12,991	125	125	24,429	44,261	10.09	9.62	1.97	3.41
Axle works	7	699	1,159	21	28	499	1,565	30.05	24.16	.71	1.35
Car wheels	31	3,212	3,782	139	161	8,341	11,586	43.27	47.86	2.60	3.06
Woven wire fence	16	1,665	1,733	21	8	3,907	413	12.61	4.62	2.35	.24
Nails and staples	15	1,782	1,348	14	9	2,168	642	7.86	6.68	1.22	.48
Hot mills	22	21,654	21,858	433	310	53,612	16,804	20.00	14.18	2.48	.77
Cold rolling	19	7,789	9,014	163	190	13,182	22,293	20.93	21.08	1.69	2.47
Wire springs	20	4,040	6,070	137	246	3,304	4,556	33.91	40.53	.82	.75
Stampings	58	11,194	14,848	493	651	25,259	44,039	44.04	43.84	2.26	2.97
Galvanizing and tinning	28	19,318	21,499	181	117	11,843	6,979	9.37	5.44	.61	.32
Cold drawing	14	2,443	2,847	68	98	1,694	8,442	27.84	34.42	.69	2.97
Bolts and nuts	33	10,273	11,120	241	192	15,681	27,281	23.46	17.27	1.53	2.45
Miscellaneous	271	105,586	121,292	1,835	1,921	223,051	249,261	17.38	15.84	2.11	2.06
Crucible furnaces	2	35	59	1	1	4	16	------	------	------	------
Puddling mills	7	641	389	41	29	879	516	------	------	------	------
Docks and ore yards	4	350	429	1	2	10	355	------	------	------	------
Others	258	104,560	120,415	1,792	1,889	222,158	248,374	------	------	------	------

An analysis of the experience of departments with exposures of at least 20 million man-hours each in 1934 shows some significant changes from 1933. In 10 of the 12 departments accident frequency rates actually decreased as the man-hour exposure increased—proving that increases in employment need not be accompanied by increases in accident-frequency rates. But in 6 departments the decreasing frequency rates were accompanied by increasing severity rates, indicating that while accidents were proportionately lessened, they increased in severity. In 4 departments, on the other hand, increased exposure was accompanied by decreasing frequency and decreasing severity rates. Foundries were the only major department in which increased exposure was accompanied by an increase both in accident frequency and in the average days lost per accidental injury.

Table 3.—Comparison, by Major Departments, of Exposure, Frequency, and Severity Rates, 1933 and 1934

Department	Man-hours' exposure		Accident frequency rate		Accident severity rate	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
Open-hearth furnaces	x			x	x	
Foundries	x		x		x	
Heavy rolling mills	x			x	x	
Sheet mills	x			x	x	
Tube mills	x			x		x
Unclassified rolling mills		x		x	x	
Fabricating shops	x			x	x	
Forge shops	x		x			x
Mechanical	x			x	x	
Hot mills	x			x		x
Galvanizing and tinning	x			x		x
Miscellaneous	x			x		x

From the standpoint of accident prevention, the accident frequency rates deserve attention as showing the incidence of accidents. Table 2 shows a wide fluctuation of accidents per million man-hours' exposure. In 1933, frequency rates varied from a low of 4.75 in power houses to a high of 62.30 for electric-furnace departments. In 1934 the range was from 3.68 for power houses to 51.58 for foundries. The maximum rates in 1933 and 1934 were respectively 13 and 14 times the minimum rates experienced during the same year.

Among major departments, as determined by millions of man-hours worked and consequently by exposure to accident hazards, fabricating shops, forge shops, and foundries stand out for high frequency rates both in 1933 and 1934. The rate for forge shops increased from 30.15 to 32.88; that for fabricating shops decreased slightly from 41.60 to 39.95; and the rate for foundries increased from 42.90 to 51.58—an increase of nearly 25 percent. The frequency rate for foundries in 1934 was the highest not only for major departments but for all departments.

Some of the smaller exposure groups fared little better. Electric-furnace departments had frequency rates of 62.30 and 48.16 respectively in 1933 and 1934. The frequency rate for car-wheel departments increased from 43.27 in 1933 to 47.86 in 1934. The rate for wire-spring departments increased from 33.91 to 40.53. The rates for stamping departments decreased slightly from the 1933 figure of 44.04, but remained at the high level of 43.84 in 1934.

Although 23 out of the 31 departments experienced decreasing accident frequency rates in 1934 over 1933, these decreases were not sufficient to offset the increases. As a net result, the over-all 1934 experience was slightly worse than that for 1933.

The relative seriousness of accidental injuries is reflected in the severity rates. In 1934, injuries in blast furnaces, plate mills, and rod mills averaged in excess of 5 days per 1,000 man-hours' exposure.

Open-hearth furnaces, fabricating shops, and yard departments experienced in 1934, severity rates of 4.37, 3.83, and 3.41, respectively. The increases in total number of days lost for departments with increasing severity rates sufficiently offset the decreases to result in a slight increase in the severity rate for the industry as a whole.

Table 4.—Accidents and Accident Rates for Identical Establishments in the Iron and Steel Industry, by Extent of Disability, 1933

Department	Man-hours worked (thousands)	Number of accidents resulting in—				Total number of accidents	Total time lost (days)	Frequency rate	Severity rate
		Death	Permanent disability		Temporary total disability				
			Total	Partial					
All departments [1]	572,770	92	4	673	10,397	11,166	1,339,428	19.49	2.34
Blast furnaces	17,184	11	------	14	240	265	81,310	15.42	4.73
Bessemer converters	3,679	2	------	3	31	36	15,274	9.79	4.15
Open-hearth furnaces	28,612	14	------	33	346	393	117,011	13.74	4.09
Electric furnaces	1,958	------	------	------	122	122	1,397	62.30	.71
Foundries	38,015	6	1	51	1,573	1,631	116,087	42.90	3.05
Bar mills	3,866	------	------	4	38	42	3,392	10.86	.88
Heavy rolling mills	34,504	3	------	43	308	354	59,106	10.26	1.71
Plate mills	7,799	2	------	14	90	106	25,753	13.59	3.30
Rod mills	5,520	3	------	11	62	76	30,772	13.77	5.57
Sheet mills	46,281	4	2	63	870	939	108,209	20.29	2.34
Tube mills	28,769	1	------	37	322	360	37,144	12.51	1.29
Unclassified rolling mills	29,956	1	------	41	530	572	52,245	19.09	1.74
Fabricating shops	14,521	2	------	19	583	604	39,036	41.60	2.69
Forge shops	30,053	2	------	43	861	906	71,588	30.15	2.38
Wire drawing	18,114	1	------	26	211	238	41,955	13.14	2.32
Electrical	9,434	4	------	5	61	70	28,426	7.42	3.01
Mechanical	49,729	10	------	67	491	568	123,081	11.42	2.48
Power houses	2,734	------	------	1	12	13	672	4.75	.25
Yards	12,384	1	------	15	109	125	24,429	10.09	1.97
Axle works	699	------	------	------	21	21	499	30.05	.71
Car wheels	3,212	1	------	1	137	139	8,341	43.27	2.60
Woven-wire fence	1,665	------	------	4	17	21	3,907	12.61	2.35
Nails and staples	1,782	------	------	1	13	14	2,168	7.86	1.22
Hot mills	21,654	4	------	20	409	433	53,612	20.00	2.48
Cold rolling	7,789	------	------	14	149	163	13,182	20.93	1.69
Wire springs	4,040	------	------	6	131	137	3,304	33.91	.82
Stampings	11,194	------	------	30	463	493	25,259	44.04	2.26
Galvanizing and tinning	19,318	------	------	11	170	181	11,843	9.37	.61
Cold drawing	2,443	------	------	2	66	68	1,694	27.84	.69
Bolts and nuts	10,273	1	------	11	229	241	15,681	23.46	1.53
Miscellaneous	105,586	19	1	83	1,732	1,835	223,051	17.38	2.11
Crucible furnaces	35	------	------	------	1	1	4	------	------
Puddling mills	641	------	------	------	41	41	879	------	------
Docks and ore yards	350	------	------	------	1	1	10	------	------
Others	104,560	19	1	83	1,689	1,792	222,158	------	------
Coke ovens	10,661	5	------	7	66	78	35,334	7.32	3.31
Erecting	60	2	------	------	13	15	12,264	249.55	204.03

[1] Except coke-oven and erection departments.

Analyses of the nature of disability for injuries resulting from industrial accidents are given in tables 4 and 5 for 1933 and 1934, respectively.[3] Nature of disability is classified as death, permanent total disability, permanent partial disability, and temporary total disability. Permanent total disability incapacitates a worker for life, and may involve the loss of both eyes, both arms, both legs, etc.

[3] The data given in tables 4 and 5 for coke ovens and erecting concern such operations as are carried on by iron and steel establishments, but do not properly fall within the accident experience of the iron and steel industry. Particular attention is called to the extremely high frequency and severity rates of erecting activities in both 1933 and 1934.

Permanent partial disability involves dismemberment or loss of use resulting in less than permanent total disability, and may be illustrated by the loss of one arm, or one leg, or one or more fingers or toes. Temporary total disability involves a temporary period of incapacity, at the end of which the injured worker is able to return to work, usually having fully recovered.

Table 5.—Accidents and Accident Rates for Identical Establishments in the Iron and Steel Industry, by Extent of Disability, 1934

Department	Man-hours worked (thousands)	Number of accidents resulting in—				Total number of accidents	Total time lost (days)	Frequency rate	Severity rate
		Death	Permanent disability		Temporary total disability				
			Total	Partial					
All departments [1]	662,800	119	7	771	12,127	13,024	1,639,081	19.65	2.47
Blast furnaces	19,169	16	------	15	255	286	110,736	14.92	5.78
Bessemer converters	4,201	1	------	8	24	33	10,419	7.86	2.48
Open-hearth furnaces	31,840	14	2	39	367	422	139,159	13.25	4.37
Electric furnaces	7,911	------	------	8	373	381	13,382	48.16	1.69
Foundries	48,289	6	2	76	2,407	2,491	151,514	51.58	3.14
Bar mills	4,457	------	------	3	57	60	2,774	13.46	.62
Heavy rolling mills	38,786	4	------	34	328	366	71,921	9.44	1.86
Plate mills	9,422	7	------	6	136	149	52,356	15.81	5.56
Rod mills	4,826	3	------	7	26	36	24,904	7.46	5.16
Sheet mills	47,015	8	------	59	620	687	112,103	14.61	2.38
Tube mills	39,030	3	------	41	387	431	45,238	11.04	1.16
Unclassified rolling mills	28,275	2	------	33	490	525	56,287	18.57	1.99
Fabricating shops	21,152	3	1	52	789	845	81,044	39.95	3.83
Forge shops	41,578	2	------	88	1,277	1,367	97,228	32.88	2.34
Wire drawing	16,739	1	------	25	190	216	43,798	12.90	2.62
Electrical	10,588	3	1	6	39	49	32,299	4.63	3.05
Mechanical	56,701	13	------	53	526	592	145,225	10.44	2.56
Power houses	3,258	1	------	2	9	12	10,572	3.68	3.25
Yards	12,991	3	------	16	106	125	44,261	9.62	3.41
Axle works	1,159	------	------	1	27	28	1,565	24.16	1.35
Car wheels	3,782	1	------	2	178	181	11,586	47.86	3.06
Woven wire fence	1,733	------	------	1	7	8	413	4.62	.24
Nails and staples	1,348	------	------	1	8	9	642	6.68	.48
Hot mills	21,858	1	------	10	299	310	16,804	14.18	.77
Cold rolling	9,014	1	------	17	172	190	22,293	21.08	2.47
Wire springs	6,070	------	------	6	240	246	4,556	40.53	.75
Stampings	14,848	------	------	49	602	651	44,039	43.84	2.97
Galvanizing and tinning	21,499	------	------	6	111	117	6,979	5.44	.32
Cold drawing	2,847	1	------	3	94	98	8,442	34.42	2.97
Bolts and nuts	11,120	3	------	11	178	192	27,281	17.27	2.45
Miscellaneous	121,291	22	1	93	1,905	1,921	249,261	15.84	2.06
Crucible furnaces	58	------	------	------	1	1	16	------	------
Puddling mills	389	------	------	------	29	29	516	------	------
Docks and ore yards	429	------	------	1	1	2	355	------	------
Others	120,415	22	1	92	1,774	1,889	248,374	------	------
Coke ovens	11,050	2	------	6	38	46	22,926	4.16	2.07
Erecting	118	2	------	4	28	34	14,360	287.40	121.38

[1] Except coke-oven and erection departments.

The most serious types of accidents, of course, are those which either kill workers or so cripple them as to incapacitate them for life. In table 6 the cases of death and permanent total disability per 1,000 accidents have been computed. Whereas the average for the total industry increased from 10 such accidents in 1933 to 11 in 1934, individual departments had an accident record considerably worse than this, as shown in the following tabulation:

	1933	1934
Mechanical department	18	22
Plate mills	19	47
Open-hearth furnaces	36	38
Rod mills	39	83
Blast furnaces	42	56
Electrical	57	82

Table 6.—Fatal and Permanent Total Disability Accidents per 1,000 Total Accidents in Identical Establishments in the Iron and Steel Industry, 1933 and 1934

Department	Total number of accidents		Cases of death and permanent total disability			
			Number		Cases per 1,000 accidents	
	1933	1934	1933	1934	1933	1934
Blast furnaces	265	286	11	16	42	56
Bessemer converters	36	33	2	1	56	30
Open hearths	393	422	14	16	36	38
Foundries	1,631	2,491	7	8	4	3
Heavy rolling mills	354	366	3	4	8	11
Plate mills	106	149	2	7	19	47
Rod mills	76	36	3	3	39	83
Sheet mills	939	687	6	8	6	12
Tube mills	360	431	1	3	3	7
Unclassified rolling mills	572	525	1	2	2	4
Fabricating shops	604	845	2	4	3	5
Forge shops	906	1,367	2	2	2	1
Wire drawing	238	216	1	1	4	5
Electrical	70	49	4	4	57	82
Mechanical	568	592	10	13	18	22
Power	13	12	----	1	----	83
Yards	125	125	1	3	8	24
Car wheels	139	181	1	1	7	6
Hot mills	433	310	4	1	9	3
Cold rolling	163	190	----	1	----	5
Cold drawing	68	98	----	1	----	10
Bolts and nuts	241	192	1	3	4	16
Miscellaneous	1,792	1,889	20	23	11	12
Average per 1,000 accidents	----	----	----	----	10	11

Experience of Selected Group of Establishments

In sharp contrast with the experience of the industry as a whole is that of a selected group of establishments which have been engaged in effective safety work for years and during that time have been able to reduce their frequency rates consistently. As against a frequency rate of 19.49 for all identical establishments in 1933, this group shows a rate of 9.1; in contrast to the industry's rate of 19.65 in 1934, this group's rate was 8.1.

In other words, this select group, carrying on the same type of industrial activity as the larger group, and included in the figures for this larger group, had less than half the total frequency rate. Safety precautions as adequate as those used by this select group apparently could have cut in two the total number of accidents for the industry.

The data in table 7 give the frequency rates for accidental injuries by major causes for 1932, 1933, and 1934. Although this compilation does not reveal the actual causes of the accidents which resulted in these injuries, the rates do throw light on the relative major causes of injuries and permit comparison. Data for earlier years were given in the Monthly Labor Review, September 1933.

Most accidents, it will be noted, fall in the group caused by hand tools and handling of objects. This single classification accounts for more accidents than the next two highest causes combined. Among the specific causes of accidents, objects dropped in handling recurs most often.

Table 7.—Accident Frequency Rates for a Selected Group of Iron and Steel Plants, 1932, 1933, and 1934

Cause of injury	1932	1933	1934	Cause of injury	1932	1933	1934
All causes [1]	8.1	9.1	8.1	Falling material, not handled by injured	(2)	0.1	(2)
Machinery	1.9	2.1	2.0	Hand tools and handling of objects	3.5	4.0	3.7
Other than cranes	.8	.9	.9	Objects dropped in handling	1.6	1.7	1.6
Caught in	.5	.7	.6	Caught between material	.8	.7	.6
Breaking	(2)	(2)	.1	Hand trucks, etc	.1	.3	.2
Struck by load	.2	.2	.2	Strain in handling	.2	.3	.2
Hoisting apparatus	1.1	1.2	1.1	Objects flying from tools	(2)	(2)	.1
Overhead cranes	.8	1.0	.9	Slivers, sharp edges, etc	.2	.4	.3
Locomotive cranes	.2	.1	.2	Hand tools	.6	.6	.7
Other	.1	.1	.1	Miscellaneous	.7	.9	.6
Vehicles	.3	.4	.2	Asphyxiation	(2)	.1	(2)
Hot substances	.6	.6	.5	Objects flying from material, striking body	(2)	.1	.1
Electricity	.1	.1	(2)	Objects flying from material, striking eye	.2	.1	.2
Hot metal	.4	.4	.3	Heat	(2)	.1	(2)
Steam, hot water, etc	.1	.2	.1	Other	.4	.6	.4
Falls of persons	1.0	1.0	1.0				
From ladders	.1	.1	.1				
From scaffolds	.1	(2)	.1				
Into openings	(2)	.1	.1				
Slipping or stumbling	.9	.8	.8				

[1] Totals and subtotals are based on man-hours rather than on totals of rounded individual figures.
[2] Less than 1/10 of 1 percent.

SOCIAL SECURITY

Dismissal Compensation for Railway Employees Displaced by Railroad Consolidations

THE payment of allowances to railroad employees affected by the joint action of two or more carriers with respect to unification, consolidation, merger, or pool, in part or in whole, was agreed upon [1] by committees representing railroad managements and the railroad personnel on May 21, 1936.

Under the Emergency Railroad Transportation Act, 1933, the purpose of which was "to encourage and promote or require action on the part of the carriers to avoid unnecessary duplication of services and facilities", the office of Federal Coordinator of Transportation was created. Provision was made in the act for the protection of labor during the period of coordination and consolidation by the establishment of a labor committee in each of the three regional groups (southern, eastern, and western). The members of these committees were to be selected by railroad labor organizations authorized to act as representatives under the Railway Labor Act, and the Coordinator was directed to confer with the labor committee prior to taking any action or issuing any order which would affect the interest of the employees, so as to afford the labor committee an opportunity to present its views upon the contemplated action.

The agreement, which was signed by representatives of the railway unions and the railroad managements, was reached after negotiations covering several months, during which time projected consolidations were held in abeyance. The agreement relates solely to consolidations and specifically provides that it does not apply to "rises and falls and changes in volume or character of employment brought about solely by other causes." Effective June 18, 1936, the agreement is to remain in force for 5 years.

It is provided that each carrier contemplating a coordination shall give at least 90 days' written notice to the employees affected, with a full and adequate statement of the proposed changes to be effected

[1] Statement issued by George M. Harrison, chairman of the Railway Labor Executives Association, and H. A. Enochs, chief of personnel Pennsylvania Railroad, and chairman of the committee representing railroad managements. Washington May 21, 1936. Congressional Record, May 21, pp. 7866, 7948.

by such coordination, including an estimate of the number of employees of each class affected by the proposed changes. Arrangements must be made within 10 days of the receipt of such notice for a conference between representatives of the employees and of the railroads concerned, and the conference must begin within 30 days from the date of such notice. Machinery is provided for the adjustment of any disputes which may arise between the employees and the carriers in regard to coordination resulting in the displacement of employees.

The agreement provides that no employee of any of the carriers involved in a particular coordination who is continued in service shall, for a period not exceeding 5 years from the effective date of such coordination, be placed in a worse position as regards compensation and rules governing working conditions than he occupied at the time of such coordination, so long as he is unable in the normal exercise of his seniority rights to obtain a position at least equal in compensation to the one held by him at the time of the coordination.

An employee shall be regarded as deprived of employment when the position he holds on his home road is abolished and he is unable by the exercise of his seniority rights to obtain another position, or when his position is not abolished but is lost by reason of the exercise of seniority rights by an employee whose position is abolished.

There are three provisions in the agreement for financial allowances to employees affected by coordinations as follows:

1. When an employee affected by a particular coordination is placed in a position paying less monthly salary than previously received by him, then the difference must be paid by the carrier for not to exceed 5 years or until, through promotions or otherwise, the employee received a salary equal to or greater than that received prior to the coordination.

2. Any employee of the carriers deprived of employment as the result of a coordination is to receive a "coordination allowance" based on length of service which, except in the case of an employee with less than 1 year's service, shall be a monthly allowance equivalent in each instance to 60 percent of the average monthly compensation of that employee for the 12 months prior to the coordination as follows:

Length of service	*Period of payment (months)*
1 year and less than 2 years	6
2 years and less than 3 years	12
3 years and less than 5 years	18
5 years and less than 10 years	36
10 years and less than 15 years	48
15 years and over	60

An employee with less than 1 year of service will receive a coordination allowance in a lump-sum payment equivalent to 60 days' pay.

3. Any employee eligible to the benefits and protections of this agreement may, at his option at the time of coordination, resign and in lieu of all other benefits and protections provided in the agreement accept in a lump sum a "separation allowance" determined in accordance with the following schedule:

Length of service	*Separation allowance (months' pay)*
1 year and less than 2 years	3
2 years and less than 3 years	6
3 years and less than 5 years	9
5 years and less than 10 years	12
10 years and less than 15 years	12
15 years and over	12

Employees with less than 1 year's service would receive 5 days' pay at the rate of the position last occupied for each month in which they worked.

Employees who, because of coordinations, are required to change their place of residence will be reimbursed for expenses and certain losses, according to the terms of the agreement. Thus, such an employee will be reimbursed for all expenses of moving his household and other personal effects and for the traveling expenses of himself and members of his family, including living expenses during the time necessary for such transfer and for a reasonable time thereafter not to exceed 2 working days, used in securing a place of residence in his new location. If an employee is furloughed within 3 years after having been transferred, he will be reimbursed for expenses if he elects to move back to his original place of employment. Further, if an employee is compelled to change his point of employment, he will be reimbursed, at his option, for any loss suffered in the sale of his home for less than its fair value. An employee must also be protected by the carrier against loss to the extent of a fair value of any equity he may have because of a contract to purchase a home or for any loss resulting from an unexpired lease of a dwelling occupied by him as a home. According to the agreement, however, no claim for loss shall be paid which is not presented within 3 years after the effective date of a coordination, and the agreement sets up machinery for determining what shall be considered as a fair loss due to the above causes.

The agreement provides that in cases of proposed coordination between railroads these provisions shall be applicable both in those cases in which all the carriers (two or more) are parties to the agreement and in those in which a carrier or carriers which are parties to the agreement undertake a coordination with a carrier or carriers which are not parties to it. Such a coordination shall be made only upon the basis of an agreement approved by all of the carriers which are parties thereto, and all the employees' organizations involved of all of the carriers concerned, and no coordination involving classes of employees not represented by any of the organizations parties to the agreement shall be undertaken by the carriers adhering to the agreement except in accord with its provisions.

It is provided that the agreement shall be subject to revision by mutual agreement of the parties subscribing to it, but only after the serving of a 60 days' notice by either party upon the other.

New York Unemployment-Insurance Law Held Constitutional

THE Court of Appeals of New York State on April 15, 1936, upheld the constitutional validity of the New York unemployment-insurance law. (*W. H. H. Chamberlin, Inc.*, v. *Elmer F. Andrews; E. C. Stearns & Co.* v. *Elmer F. Andrews;* and *Associated Industries of New York State, Inc.*, v. *Elmer F. Andrews.*)

In the first two cases, a lower court had upheld the constitutionality of the law with the exception of subdivision 2 of section 504 which provides that "An employee shall not be entitled to benefits except for unemployment which continues subsequent to a waiting period of 10 weeks: (a) If he has lost his employment through misconduct in connection with his employment; or (b) if he has lost his employment because of a strike, lockout, or other industrial controversy in the establishment in which he was employed." This provision, according to the court, was a taking of property without due process. In the third case another lower court held the entire act void and unconstitutional in that it deprived plaintiff of its property without due process of law and denied it the equal protection of the law.

The Court of Appeals in its opinion covering all three cases, took judicial notice of the prevalence of unemployment within the past several years and that there exists a serious problem for the solution of which the State must exercise its reserved powers. "The fact is that in the past few years enormous sums of State and Federal moneys have been spent to keep housed and alive the families of those out of work who could not get employment. Such help was absolutely necessary, and it would be a strange sort of government, in fact no government at all, that could not give help in such trouble." The legislature of the State, faced with an acute problem, investigated it and decided that in the unemployment-insurance law as passed a solution might be found. The court expressly held that there was nothing unreasonable or unconstitutional in a statute which aims to meet the evils of unemployment by raising money through the taxing of employers generally. Moreover, the mere fact that the act is limited in application to employers having four or more employees does not create an unfair classification within the meaning of the phrase "unequal protection of the laws." Nor does the fact that employers who have had no unemployment are obliged to contribute to a fund to help those who are unemployed constitute such an unfair classification. The court continued:

> When able-bodied, willing men cannot find work they may be treated as a class, irrespective of their particular calling or trade. The peril to the State arises from unemployment generally, not from any particular class of workers. So likewise, employers generally are not so unrelated to the unemployment problem as to make a moderate tax upon their pay rolls unreasonable or arbitrary.

s stated before, unemployment and business conditions generally are to a large tent linked together.

The opinion also stated that "Power in the State must exist to eet such situations and it can only be met by raising funds to tide ver the unemployment period."

Nor is the tax upon employers taxation for the benefit of a special lass rather than for the public at large. "The legislature, after vestigating, has found the facts to be that those who are to receive enefits under the act are the ones most likely to be out of employ- ent in times of depression. The courts cannot investigate these cts and should not attempt to do so." It was also pointed out that ourts are not concerned with the accuracy of legislative findings. hey merely determine whether such findings have a sufficiently easonable basis so as not to be arbitrary. The provisions of the nemployment-insurance laws are not so arbitrary or unreasonable s to violate the due-process clause or to constitute a denial of the qual protection of the laws.

The judgments of the courts below in favor of the plaintiffs were, herefore, reversed and the motions for judgment on the pleadings enied.

The case has been appealed to the United States Supreme Court.[1]

Health-Insurance Act of British Columbia[2]

A SYSTEM of health insurance for the Province of British Columbia was provided for by an act passed by the legislature n March 31, 1936. The act applies to all employees earning less han $1,800 per year, and their dependents, with the exception of arm workers, Christian Scientists, and members of any industrial medical-service plan in operation January 1, 1936. It is also pro- vided that, subject to the approval of the authorities, the health nsurance commission set up by the act may exclude domestic ser- vants employed in private households, casual employees, part-time employees, and employees in designated establishments, industries, or localities, whom it is considered unnecessary or inexpedient to include. It is estimated that about 275,000 persons will be covered by the insurance, of whom 110,000 are workers and 165,000 are dependents. Voluntary insurance is to be allowed to persons not covered by the compulsory plan, after a date fixed by the Lieutenant Governor in Council.

[1] United States Supreme Court, Docket Nos. 1000, 1001, 1037.

[2] British Columbia, An Act to Provide for the Establishment of a Provincial System of Health Insur- nce, Victoria, 1936; British Columbia, Summary of the Health Insurance Act, (Victoria?), 1936.

A health-insurance fund, formed from the contributions of employers and insured persons and all other moneys and income received by the commission, will be established, which shall be deposited to the credit of the commission in one or more chartered banks. The contributions by employees, which will be deducted from their pay, are fixed at 2 percent of the remuneration, with a minimum of 35 cents per week and a maximum of 70 cents per week. The value of payments in kind will be fixed by the commission in establishing the amount of the contribution. The employer's contribution amounts to 1 percent of the employee's pay, with a minimum of 20 cents per week and a maximum of 35 cents. The contributions of voluntarily insured persons will be fixed at a rate sufficient to cover the total cost of providing all benefits, including costs of administration. Provision is made for the proper investment of the health-insurance fund.

The benefits include the services of a physician when required for preventive, diagnostic, or therapeutic treatment, and prenatal and maternity treatment for women, and surgical and specialist services as may be necessary. Hospital maintenance and care in a public ward is provided for not more than 10 consecutive weeks for any one illness, unless a longer period is prescribed by the regulations, or the value of such service may be applied towards more expensive accommodations or treatment. Necessary drugs, medicines, and dressings are provided, although, subject to the provisions of the regulations, insured persons may be required to bear not to exceed one-half of these costs, while necessary laboratory services and diagnostic aids are supplied without charge. Certain services for the diagnosis and treatment of tuberculosis, venereal diseases, nervous and mental diseases, etc., for which service is available in public or governmental institutions, are not covered by the insurance.

Insured persons and their dependents are eligible for benefits at the expiration of 4 weeks after contributions become payable, and they continue eligible to receive benefits during each succeeding contribution week for 4 additional calendar weeks and for such further additional period as may be determined by the commission. Employees who have ceased to be eligible for benefits under the foregoing section, but who again become insured, are eligible together with their dependents to receive benefits after the expiration of 1 week after contributions have become deductible and payable and are eligible in each succeeding contribution week for 1 additional calendar week and for such further additional period as may be determined by the commission. Employees who become ineligible for benefits under both of these sections, but because of sickness or injury are unable to engage in any employment, may receive benefits for an additional 12 weeks. This provision does not now apply to the dependents but may be made applicable to them by the regulations.

The commission is empowered to provide benefits for insured persons in such manner as it may consider expedient, but in all cases where it considers the circumstances do not require the exercise of such power in order to secure prompt, efficient, and economical medical service, the insured person is allowed to choose the physician or druggist, so that so far as possible all competent physicians and pharmacists may be employed and be available to insured persons.

The commission is to make its own financial arrangements with physicians, druggists, hospitals, laboratories, and other persons or agencies providing services. Three methods of payment, or any combination or modification of these methods, may be used for the physicians, i. e., a salary system, a per capita system under which the physician is paid a fixed amount per annum for every insured person for whom he has agreed to provide services, and a fee system under which payment is based on the extent and character of the services rendered. In the last case the total expenditures in any one year may not exceed a fixed rate per annum per insured person eligible to receive benefits. If the per-capita or fee system is used, it is provided that the commission shall set aside for the payment of physicians not less than $4.50 per annum per insured person per year.

The act will be administered by a health insurance commission consisting of a chairman and not more than four other members appointed by the Government. The chairman will devote his entire time to the office but the other officers will give only part-time service. A technical advisory council of not more than six members may be appointed to assist the commission. On this council there is to be the Provincial health officer, a representative of the workmen's compensation board, a physician, and at least one woman. The commission will appoint and employ a physician as director of medical services and such other physicians and other employees as may be required for the administration and enforcement of the act. The commission is empowered, subject to Government approval, to make all regulations, not inconsistent with the provisions of the act, which are considered necessary to its administration and enforcement.

Financial Condition of Unemployment Insurance Fund of Great Britain, 1935

AN INCREASE of income over expenditures of the British unemployment insurance fund amounting to nearly £11,000,000 per year during the past 2 years is shown in the report of the Unemployment-Insurance Statutory Committee for the year ending December 31, 1935.[1] The receipts of the unemployment fund for the calendar

[1] Great Britain. [Ministry of Labor.] Report of the Unemployment Insurance Statutory Committee, on the financial condition of the unemployment fund on Dec. 31, 1935. London, 1936.

year were £64,771,147, of which all but £199,062 represented contributions by employers, employees, and the Government. The expenditures of the fund amounted to £53,848,522, of which £44,055,000 was paid for unemployment benefits. The net balance in the fund at the end of 1935 was nearly £21,450,000.

The following table shows a statement of the approximate receipts and payments of the insurance account of the unemployment fund for 1934 and 1935, with the balance in the account at the end of each year, prepared for the Unemployment Insurance Statutory Committee. This is not an audited account but it is in the same form as the accounts of the fund presented to Parliament after audit for the financial year ending March 31.

Receipts and Expenditures of British Unemployment Insurance Fund, 1934 and 1935

Item	1934	1935
Receipts		
Contributions from:		
Employers and workers	£41,122,776	£42,619,30
Defense Departments in respect of men discharged from H. M. forces	336,302	470,48
Exchequer	20,676,805	21,482,20
Interest on investments	39,352	[1] 181,43
Miscellaneous receipts	20,392	17,62
Total	62,195,627	64,771,14
Expenditures		
Insurance benefits	40,588,000	44,055,00
Refunds of contributions paid in respect of noninsurable employment	105,469	125,48
Grants for authorized courses of instruction	130,000	159,00
Grants towards traveling expenses of insured persons seeking employment	7,973	9,03
Administrative expenses	3,939,000	44,500,00
Interest on Treasury advances (Jan. 1 to Mar. 31)	1,258,000	
Debt service	[2] 3,750,000	5,000,00
Surplus	[3] 12,417,185	10,922,62
Total	62,195,627	64,771,14
Balance on Dec. 31	10,527,185	21,449,81

[1] No allowance made for interest accrued but not received Dec. 31, 1935, nor for loss on realization on investments.
[2] For 9 months ended Dec. 31, 1934.
[3] Part of this surplus used prior to July 1, 1934, in repayment of Treasury advances.

In spite of the decline in unemployment in 1935, there was an increase of £3,467,000 in the expenditure for benefits. This is accounted for mainly by the operation for a whole year (instead of 6 months or less) of the higher rates of benefit restored on July 1, 1934, of the extension of benefit by added days, and of other changes in the conditions of benefit. Other items in the increased expenditures were increases in the cost of administration, the refund of contributions paid in error, and grants for courses of instruction for juveniles. The surplus of the unemployment fund in 1935 was realized in spite of two changes made during the year, each of which led to increased expenditure. One was the relaxation in August 1935 of the seasonal workers orders, which it is estimated will result in an increase in expenditure considerably in excess of £50,000 a year, and the other the increase in

ctober 1935 in the allowance for dependent children from 2s. to 3s. r week which, according to the estimate, will increase the expendi-ures of the fund about £1,250,000 per year.

The Unemployment Insurance Statutory Committee, in addition to ubmitting an annual report upon the financial condition of the fund, empowered to make recommendations for amendments if it finds the nd likely to become insufficient, and also has power to recommend mendments to the regulations and to advise upon questions relating the operation of the unemployment insurance acts. At the time its establishment the Committee was directed by the law to make, soon as possible, such proposals as might seem practicable for insur-nce against unemployment of persons employed in agriculture, in-luding horticulture and forestry. This was done and the Unemploy-ent Insurance (Agriculture) Act received royal assent April 9, 1936. (See p. 1512.)

The Committee considered the probable future solvency of the fund nd concluded that it was necessary, in arriving at conclusions as to he sufficiency of the fund, to estimate the amount of unemployment ver a future period of years not less than that of a normal trade cycle, nd also that surpluses should be set aside in good times to form a re-erve to be used in making up deficiencies which would occur inevitably n times of trade depression. No recommendations were made in the eport for 1934 although there was a surplus of £10,507,000, as it was elt that not enough time had elapsed since the 1934 act was passed; ut because of the more favorable prospects of employment a second eport was issued in July 1935. At that time it was considered that it as reasonable to base the finance of the fund upon the assumption hat the average rate of unemployment over a period of years in the uture would be less than the 18.1 percent at which income and expen-iture would balance with the scales of contribution and benefit dopted in 1934. Since it seemed, therefore, that the unemployment und would probably be more than reasonably sufficient, it was recom-mended that the allowance of children should be raised from 2s. to 3s. per week with a limit of 41s. per week for any claimant. It was stimated that the balancing point of the fund would be changed even with this expenditure from 18.1 to 17.7 percent of unemployment. The change in children's allowances was put in effect in October 1935 but without the proposed limitation on the total benefit.

An investigation was made for the Committee by the Economic Advisory Council on which estimates of the future trend of unem-ployment could be based. In making the estimates both a 10-year period and a complete trade cycle, defined as the time "between now and the end of the third year after the next peak of unemployment", were considered. As most of the trade and employment cycles of the past have run their course, however, in much less than 10 years

the calculations were based on a definite length for the next cyc which it was assumed would be 8 years. For this period, therefor it was estimated on the basis of the 1935 experience rate of unemplo ment, which was 15.3 percent of insured persons while the percenta of total unemployment ranking for benefit was 47.1 percent, that f the next trade cycle beginning in 1936 the rate of unemployme would be 16.25 or 16.75 percent. Assuming the higher rate of une ployment—16.75 percent—and that 48 percent of the total unemplo ment will rank for benefit, the estimated surplus should amount nearly £3,600,000.

With the estimated substantial annual surplus and the alread accumulated surplus of more than £21,000,000, the Committee co sidered the arguments for applying a larger portion than the agree £5,000,000 annually toward the payment of the debt of the fun (which at the end of 1935 was more than £105,000,000), as against reduction in the insurance premiums paid by employers and worke or an increase in the rate of benefit. The majority of the Committe agreed that since the unemployment fund is, and is likely to continu to be, more than reasonably sufficient to discharge its liabilities the weekly contributions of employers and workers should be reduce as follows: In the case of men who have attained the age of 21, fro 10d. to 9d.; in the case of women 21 years and over and young me between the ages of 18 and 21, from 9d. to 8d.; and for young wome between the ages of 18 and 21, from 8d. to 7d. It was estimate that this would result in a reduction in the income of the fund o approximately £6,500,000 a year.

The Minister of Labor announced in the House of Commons o February 27,[2] that the Government had decided to adopt the recom mendation made by the majority of the Committee; and that a draf order for the purpose, to operate from July next, would be laid before both Houses of Parliament in due course. The order was approved by 184 votes to 96 on April 8.[3]

Extension of British Unemployment-Insurance System to Agricultural Workers

AGRICULTURAL workers (including those in horticulture and forestry) in Great Britain were admitted to the unemployment-insurance system by an act which received the royal assent April 9, 1936.[4] The scheme, which contains certain modifications to suit the special needs of the agricultural industry, will, it is estimated,

[2] The Ministry of Labor Gazette, London, March 1936, p. 85.

[3] Industrial and Labor Information, Geneva, May 4, 1936, p. 123.

[4] Ministry of Labor Gazette, London, January and April 1936; Unemployment Insurance (Agriculture) Bill, London, 1936.

bring about 750,000 persons under the system, of whom about 700,000 will be males and about 50,000 females. In addition to this estimated coverage, the bill is based on the assumption that the rate of unemployment will be approximately 7½ percent, and that not more than 15 percent of the employees in the industry are hired for long terms. It is estimated that contributions (including Exchequer contributions) paid between the first week in May and the first week in November, the period in which benefits become payable, will amount to about £900,000, with the costs of administration for the period approximately £100,000. Further, it is estimated that, between November 1936 and October 1937, contributions will amount to approximately £1,706,000, benefits in the same period will cost about £1,462,000 and administrative expenses approximately £213,000. This would leave a balance of some £31,000 which, with the credit for the first 6 months before benefits become payable, would give a total estimated balance of approximately £831,000 at the end of the first year and one-half. The increased charge to the Exchequer arising from the law was estimated to be £600,000 per year.

Agricultural employment within the meaning of the act covers employment under any contract of service or apprenticeship with the exception of the employment of sons, daughters, or certain other near relatives, and of employment as a private gardener or in private domestic service (this applies to ordinary household service, gamekeepers, private grooms, hunt servants, and the like). Also, the Minister of Labor is empowered to bring within the scope of the scheme, under special conditions, certain types of manual-labor contracting.

The weekly rates of contributions by both employers and insured persons are fixed at 4½d. for men 21 years of age and over; 4d. for women aged 21 years and over and for young men between the ages of 18 and 21; 3½d. for young women aged 18 to 21; 2d. and 1½d., respectively, for boys and girls between the ages of 16 and 18; and 1½d. and 1d., respectively, for boys and girls under 16 years of age.

The weekly rates of benefit amount to 14s. for men aged 21 years and over and 12s. 6d. for women; 10s. 6d. for young men between the ages of 18 and 21 and 9s. 6d. for young women; 6s. and 5s., respectively, for boys and girls between the ages of 17 and 18 years; and 4s. and 3s. 6d., respectively, for boys and girls under 17 years of age. The rates of increase of benefit in respect to dependents are 7s. for an adult dependent, 3s. for the first dependent child, and 2s. 6d. for each additional child with the maximum weekly benefit fixed at 30s.

Benefits are paid to insured persons for whom not less than 20 contributions have been paid in the 2 years immediately preceding the date on which a claim for agricultural benefit is made. First benefits are not payable until November 5, 1936. These benefits

will be paid for 12 days for the first 10 contributions standing to the credit of an insured person at the beginning of the benefit year and for 3 additional days for each additional contribution, with a maximum benefit period in any benefit year of 300 days.

Special provision is made for yearly and half-yearly hirings, a yearly hiring being understood to mean not less than 50 consecutive weeks, and a half-yearly hiring less than 50 but not less than 21 consecutive weeks. When such an arrangement has been entered into, and where its existence has been proved in accordance with the regulations, then, on the completion of the term of employment, the parties to it shall be entitled to claim refunds amounting to 25 percent for a yearly and 12½ percent for a half-yearly hiring.

The system came into operation for the purpose of contributions May 4, 1936. The law provides that the agricultural system shall be financially self-contained and that there shall be a separate agricultural account in the unemployment fund, while the Unemployment Insurance Statutory Committee will make separate financial reports for the agricultural and the general unemployment-insurance systems. The Minister of Labor is empowered to issue regulations governing certain phases of the application of the act.

INDUSTRIAL AND LABOR CONDITIONS

Labor Legislation and Conditions in Egypt, 1935[1]

THE Egyptian Labor Office was created in November 1930 by ministerial order as a section of the public security department in the Ministry of the Interior. Under the terms of the order the duties of the office are the enforcement of previous laws and decrees concerning dangerous and unhealthful establishments and the employment of children in cotton-ginning plants, tobacco and cigarette factories, and cotton-, silk-, and linen-weaving factories. The office is also empowered to assist in the preparation of new labor legislation and the enforcement of new laws when promulgated; to revise and supervise the regulations of workshops, factories, and commercial establishments; to assist in the settlement of labor disputes; to study various industrial problems; and to collect information and statistics concerning industrial disputes, industrial accidents, and wages and hours of labor. Although the office is said to have been started with a small and untrained staff and with a limited appropriation, some positive accomplishments have been achieved in the 4 years it has been in operation and it is expected that it will develop eventually into an effective organization for social reform.

The first modern attempt at legislation in the interest of workers was made in Egypt in 1909, when the child-labor law regulating the employment of children under the age of 13 years in cotton-ginning factories was passed. The law authorized the extension of its provisions to other industries and shortly after the creation of the labor office the number of industries covered by the law was raised from 4 to 19 and a child-labor inspectorate was formed. Every factory and workshop in Egypt covered by the law has been visited by the inspectors and much valuable information has been secured regarding wages and hours of labor, accident protection, and other labor questions pertaining to adult as well as to juvenile labor.

In November 1931 a committee was set up by the Council of Ministers to draft a law on each of the following subjects: Child labor, female labor, workmen's compensation for industrial accidents and occupational diseases, contract of employment, trade-union organization, and trade disputes and arbitrations. Laws have been drafted

[1] Except where otherwise noted, data are from Egypt, Labor Office, Annual Report for the Year 1935, Cairo, 1935.

and promulgated regulating the employment of children in industry and the employment of women, while several of the others specified have been drafted but not yet passed.

Child labor.—The child-labor law provides for a maximum 9-hour day for children between the ages of 12 and 15 years and a maximum 7-hour day for children between the ages of 9 and 12. The employment of children under the age of 9 years is prohibited, as is also night work for all children and adolescents. Dangerous trades in which no person under 17 years of age may be employed are specified, as well as the industries in which only children possessing certificates of physical fitness may be engaged. The law also provides that all children and adolescents shall have a weekly day of rest and a rest period in the middle of each day's work. The law does not apply to commercial establishments, as the employment of children in shops is infrequent.

In explanation of the fixing of the legal working age at 12 or at 9 in sheltered trades it is stated that, since the Government as yet provides no schools for thousands of children who largely lack proper parental supervision, employment is to be preferred to complete idleness, particularly in view of the fact that fixing the age of entrance into industry too high would present a grave risk of subsequent unemployment. Also, children mature more rapidly in Egypt than in European nations. It is realized, however, that the law leaves much to be desired.

Employment of women.—The law covering the employment of women in industry and commerce fixes a 9-hour day, a weekly day of rest, and a daily rest period. Night work is prohibited and there are certain concessions in respect of pregnancy, childbirth, and the nursing of children. Employment is forbidden in dangerous and unhealthy trades.

It is said the need for this law was very great, as in certain industries, particularly cotton ginning, a 10- or 11-hour day was customary with at most a half day of rest weekly, while in some establishments the working hours were 12 or longer, with very low rates of pay.

The enforcement of these two laws in ginning factories has resulted in quite general abandonment of the employment of women and of children under the age of 15, owing to the long hours (14 to 16) worked by adult males and the difficulty of fitting woman and child workers in, since most employers are not willing to arrange for shifts of a length which would allow their employment.

Infractions of the female-labor law have been found to be more frequent in commercial than in industrial establishments, owing to the fact that there is no legal closing hour for commercial establishments and that many shops are open on Sunday morning.

Labor council.—A higher labor council was created by a decision of the Council of Ministers in December 1932 as a result of a report by the International Labor Office on labor conditions in Egypt. The purpose of the council is to "collaborate with the Government in the preparation of labor laws, to advise on matters of labor administration and to assist the Labor Office in planning the various inquiries which it undertakes, to carry out and to cooperate generally with the Government in promoting the welfare of labor and the workers." The members of the council include the heads of government departments employing labor, and representatives of important industrial enterprises. The failure to provide for labor representation on the council, it is said, has provoked a good deal of criticism and is without doubt a serious defect in the composition of the council. It was recommended in the report, therefore, that at the expiration of the present terms of the members of the council a few working-class representatives should be appointed.

Hours of labor in industrial establishments.[2]—On May 15, 1935, the General Assembly of the Mixed Court of Appeal approved a measure limiting the hours of labor in certain industries. This measure has recently been promulgated by the Egyptian Government as decree law no. 147 of 1935.

The law provides for a 9-hour day in the following: (1) Underground work in mines and quarries and all extraction of rock, (2) blast furnaces and smelters, (3) silvering of mirrors by mercury process, (4) manufacture and handling of explosives, (5) casting and blowing of glass, (6) handling, treatment or reduction of ashes containing lead or silver lead ore, (7) manufacture of solder or similar articles containing more than 10 percent of lead, (8) manufacture of litharge, massicot, red lead, white lead, sulphate, chromate, or silicate of lead, (9) mixing and slicing operations in the manufacture or repair of electric accumulators, (10) manufacture of asphalt, (11) tanning of hides and skins, (12) fertilizer manufactured from fecal matter, manure, bones and blood, and (13) killing and skinning of animals.

The above schedule of industrial operations may be modified by order of the Ministry of Commerce and Industry.

The law further provides that the working day must be broken by one or more intervals of rest aggregating at least 1 hour, and so arranged that the workers have not labored for more than 5 consecutive hours. In order to prevent an accident, make repairs, or prevent a certain loss of perishable materials, the above working regulations may be relaxed on condition (1) that the working day does not exceed 11 hours and that the workers do not labor for more than 6 consecutive hours; (2) that the Labor Bureau is notified within 24 hours; and (3) that the workers are paid time and a quarter for all overtime.

[2] Data are from report from H. Earle Russell, American Consul General at Alexandria, Dec. 11, 1935, based upon Journal Officiel du Gouvernement Egyptien, No. 110.

Employers must post in a conspicuous place a schedule of hours of labor and of rest. Every establishment coming under the law may be inspected at any time by inspectors of the Ministry of Commerce and Industry, who are given police powers for this purpose.

Every infraction of the provisions of the law will be penalized by a fine not exceeding Pt. 100 (about $5), this fine to be imposed every time that workers are employed in violation of the act and for each worker involved. Second offenses within a year may be punished by fines and imprisonment for a period not exceeding 1 week. Prosecutions will be directed against the manager of the enterprise and also against the owner, if circumstances indicate that he is aware of the facts constituting the infraction.

British Miners' Welfare Fund, 1934

ONE consequence of the depressed condition of the coal-mining industry in Great Britain has been to decrease materially the amount of money available for the miners' welfare activities which are a statutory obligation of the industry.[1] The Miners' Welfare Fund is created by taxes on output and mine royalties. In 1934 the output levy was reduced 50 percent, from 1d. to ½d.[2] per ton of coal mined, and the total coal production decreased. Decreased output, in turn, lessened the amount available under the royalties levy, which is 5 percent of the amount paid by coal operators to the owners of the coal-bearing lands in operation. The total receipts of the Welfare Fund in 1934, both from levies and from interest on unexpended balances, was £660,982,[2] as compared to £798,409 in 1933.

Legislation enacted in 1934, in addition to reducing the amount of available revenue, stipulated a fixed amount which must be used for pit-head baths and other facilities for the use of the miners themselves. Previously the money realized by the tax on royalties had been used to install pit-head baths, but the act of 1934 provided that if the royalties levy did not amount to £375,000 in a year, enough money must be diverted from the general fund to bring the fund for pit-head welfare schemes up to that figure. Moreover, the pit-head fund had prior claim upon whatever amount was needed from the general fund. A further allocation of £20,000 from the general fund for research purposes was made mandatory under the act of 1934.

These two conditions—reduced income and the emphasis upon welfare plans connected directly with the mine workers at the pit—made retrenchments necessary in the operation of the Miners' Welfare Fund. The committee administering the fund has just issued its

[1] See Monthly Labor Review, May 1935 (p. 1208): Miners' Welfare Activities in Great Britain.

[2] Pound sterling at par=$4.8665, shilling=24.33 cents, penny=2.03 cents; average exhange rate for 1934 was $5.0393, shilling 25.20 cents, penny 2.10 cents.

report for the year 1934.[3] It shows that while pit-head schemes have absorbed more than half the revenues of the fund, other customary activities of the system have been carried out also.

These activities and the amounts spent on them during 1934, are:

Recreation	£162, 600
Pit welfare	358, 634
Health	88, 818
Education	168, 004
Research	44, 210

Recreation.—Expenditures for recreational purposes have customarily accounted for practically 55 percent of the funds allocated to the various districts for welfare activities. In 1934 more than half the grants for recreation and leisure occupation went to outdoor facilities, one of the most important of which was children's playgrounds. Fifteen new playgrounds were established under grants amounting to nearly £10,000.

Pit-welfare schemes.—The 1934 legislation dealing with the Miners' Welfare Fund directed that other accommodations and facilities for workers in and about coal mines should be incorporated into the pit-welfare schemes in connection with pit-head baths. The miners' welfare committee regards canteens, for serving hot drinks and light refreshments, as the most serviceable and desirable additional facility to establish under this provision, and has, accordingly, decided to make the canteen part of new bath installations wherever it is required and is likely to be used adequately. All but five of the pit-head baths installed during 1934 have provisions for canteens. Twenty-seven baths were completed during 1934, with accommodations for 35,702 men and 56 women, 21 new installations and two extensions were in course of erection on December 31, 1934, and 18 new baths and one extension had been planned and the money for them had been allocated by the end of the year. The total number of pit-head baths in operation at that time was 186, with accommodations for 225,317 men and 262 women. The average cost of the installations made in 1934 was £11 16s. per person accommodated.

The report notes "a progressive improvement year by year in the percentage of use of the baths", amounting in 1934 to 89 percent, as compared to 83 in 1931, 85 in 1932, and 87 in 1933.

Other items included in pit-welfare schemes are rooms for drying clothes, where these are not part of the bathhouse equipment, sheltered waiting rooms for the use of workmen waiting for transportation, and training in ambulance and rescue work. Racks for bicycles have been provided out of the welfare fund, but the committee, in its report for 1934, takes the position that this accommodation should

[3] Great Britain. Mines Department. Thirteenth annual report of the Miners' Welfare Committee for the year 1934. London, 1935.

be regarded as a normal responsibility of the employer as in other industries.

Health.—Most of the grants made in 1934 under this heading went either to miners' convalescent homes, for building extensions and enlarging facilities, or to increase the endowment funds available to sick miners for care in general hospitals, sanitariums, and nursing homes, or for nursing services.

Education.—The fund provides two kinds of educational facilities. One is the promotion of mining education, which may take the form of providing buildings and equipment for advanced mining instruction in technical schools and universities, or of granting endowments to such institutions to enable them to expand or carry on mining instruction. The other educational activity of the Miners' Welfare Fund takes the form of scholarships available to miners and their children for degree courses in universities.

During 1934 the fund allocated £60,234 to buildings and equipment of mining schools, and £75,075 in scholarships and grants to students in mining schools. Most of the building and equipment fund (£42,000) went to one institution for advanced college work.

Fifteen general scholarships were granted in 1934, seven to mine workers, six to sons and two to daughters of mine workers; 21 scholars completed their courses during the year, and 38 scholarships were active at the end of the year.

Several of the 21 who graduated under the Miners' Welfare Fund scholarships in 1934 won graduate scholarships of various kinds. Of the scholarships granted to mine workers in 1934, two are for courses in mining, one in electrical engineering, two in economics, and one each in philosophy and arts.

Research.—The contribution of the Miners' Welfare Fund to mine research is indirect and takes the form of an annual grant of money to the Safety in Mines Research Board, with the proviso that it be expended on research in the interest of safety and health of mine workers. The amount contributed in 1934 was £44,210, including the £20,000 statutory allocation to research required by the law of 1934. Local miners' welfare committees are kept informed of the work and findings of the Safety in Mines Research Board.

Miscellaneous.—Grants to the amount of £5,463 were made to the Durham Aged Miners' Homes Association for maintenance endowments for homes already in use, and £1,300 were allotted to the building of four cottages for aged mine workers in another district.

Legal Aid for Workers in Peru

FREE legal advice to workers who request it and aid in securing their rights (including workmen's compensation), by conciliation, direct settlement, or legal recourse, are provided in Peru in the Bureau of Free Defense for Workers (*Procuraduría y Defensa Obrera Gratuitas*) established by supreme decrees of July 10 and December 6, 1935, and regulated by ministerial resolution of July 24, 1935.[1] The Bureau, under the direction of a lawyer, is a part of the Department of Fomento. It may inform claimants of the status of their cases before the Labor Office, furnish them legal advice in their conflicts with capital, and when expedient recommend direct settlement of differences. In cases involving compensation for accidents or for occupational diseases, conciliation is to be tried first, but if this fails, the Bureau, with the approval of the Labor Office, may resort to other means. A register of the persons served is to be maintained and twice each month the head of the Bureau is to report upon the work accomplished. All the services of the Bureau are to be furnished free of charge.

Regulation of Working Conditions in Building Trades of the Soviet Union [2]

A DECREE issued on February 12, 1936, provides for reorganization of building trades with special reference to the problem of housing skilled building workers in the Soviet Union. Pointing out the general progress made in the building trades in the past, the decree emphasizes certain defects resulting in an unduly high cost of building; among these are the weakness of the organization of these trades,[3] failure to profit by experience, insufficient utilization of mechanical devices, backwardness of the labor force, lack of prepared materials, and inadequate cost accounting. The decree provides for a number of measures designed to remedy these defects, of which the most important are summarized below.

Introduction of Unified System

PRIOR to the decree each section or unit of the Soviet Government had its own building program and its own plans and working staff,

[1] Data are from reports of Fred Norris Dearing, American Ambassador at Lima, July 31, 1935, and Jan. 21, 1936; and (Peru) Revista de Economía y Finanzas, August 1935 (pp. 107–108) and December 1935 (pp. 355–356).

[2] Data are from Izvestia (Moscow), Feb. 12, 1936 (pp. 1 and 2).

[3] The issue of the official daily in which the decree is published notes that during the last 9 months of 1935 the accession rate in the construction industry was 175 percent and the separation rate was 172 percent of the average number of workers employed in the building trades during these 9 months, and expresses the view that with such a high turn-over of labor no regular organization of these trades is possible.

though all were within the general framework approved by the Soviet central authorities. This meant that each unit had to secure and prepare materials, acquire mechanical appliances, and train and build up its labor force. When the immediate building program was completed, there was no further use for the mechanisms acquired and experience gained, and they often were lost entirely.

For these disconnected and wasteful activities the decree substitutes a unified system. It requires that the various all-union republic and territorial commissariats (departments) shall organize new, and reorganize the existing, Soviet building concerns (trusts, offices, sections, etc.) on a permanent basis in various industries, their branches, and in various localities. Local units are also to be established, specializing in the construction of dwellings, aqueduct and sewage systems, roads, power plants, sanitation projects, etc.

Each building area or district is to be in charge of a contractor general, who is responsible for the prosecution of all building projects and the oversight of personnel in the area. He is to make building contracts with the offices and concerns needing new buildings or special construction works.

Labor-saving devices are to be utilized to the utmost, especially in excavation, digging canals, laying pipes, cement and steel work, finishing work, preparation of materials, and their transportation.

Training of Labor Force

PERMANENT trained labor forces are to be attached to the local building organizations in each commissariat. Among the first classes of workers to be included will be machinists, railway workers, blacksmiths, turners, electricians, armature winders, carpenters, cabinetmakers, masons, plasterers, and painters.

During the next 2 or 3 years all building workers, beginning with the above-named groups, are to be given special courses of training. In each commissariat, the decree states, not less than from 30 to 40 percent of all building workers should pass an examination demonstrating the acquisition of a specified minimum of technical knowledge and skill in their respective occupation in 1936. All leaders—workers called Stakhánovites—must take a course in mastery and foremanship. The groups above named are to be accorded preferential rates when wage scales are set.

Wage Rates and Standards of Productivity

THE decree requires a general increase of productivity of labor in building trades in 1936 from 30 to 35 percent over that in 1935, to be apportioned among various operations as follows:

	Required percent of increase in productivity
Cement work	10
Bricklaying	35
Armature winding	15
Carpentry	65
Plastering and painting	20

The prescribed standards of output are to be revised and increased on the basis of the output of the Stakhánovites in the industry.[4]

New wage scales are to be worked out and put into effect from March 1, 1936. Mechanics and metal workers are to be divided into seven wage classes. The wage in the highest (seventh) class is to be 3.9 times that in the lowest (first) class. The other building workers are to be divided into six wage classes. The wage of the highest (sixth) class is to be three times that of the lowest (first) class, while the wages of other classes are to be proportioned between the levels of the highest and lowest classes.

For output in excess of the prescribed standard the rate is to be increased progressively as follows:

Output exceeding standard by—	*Supplement to standard wage (percent)*
10 percent	25
20 percent	50
Over 20 percent	100

Building masters and foremen are to be divided into two grades. The basic wage of the first grade is to be 20 percent higher than that of the second grade.

The salaries of engineer-technical employees are to be calculated on the basis of a sliding-scale system, depending upon the degree of the completion of the building program in relation to the time-terms and quality and cost of the buildings.

In addition to the piece-rate wages, "brigadiers" [5] receive special bonuses, amounting to 20 percent of their basic wage, for the direction of the work performed; and for completing the work before the time limit prescribed, a bonus based upon the sum of the wages of the workers in the "brigade" and varying as follows:

Time required shortened by—	*Bonus (percent)*
10 percent	1.0
15 percent	1.5
20 percent or more	2.0

[4] For an account of the Stakhánov movement for labor efficiency, see Monthly Labor Review, March 1936 (p. 624).

[5] A "brigadier" is a chief of a group of workers doing practically the same work (corresponding roughly to "gang" or "crew").

Housing for Building-Trades Workers

In the housing projects which are to be completed in 1936 and which it has been estimated will involve an investment of 157,500,000 rubles,[6] not less than 450,000 square meters of floor space are to be set aside for living quarters for the building workers.

In the allotment of housing accommodations, building workers who have been working in the same building organization for several years are to be given preference.

[6] Paper ruble=20 cents in United States currency.

WOMEN IN INDUSTRY

Wages and Family Responsibilities of Employed Women on Relief in New York City

LOW wages and heavy family responsibilities forced 6,674 woman workers employed in practically all industries and occupations in New York City to call upon the emergency relief bureau to supplement their earnings, during the summer of 1935. From case records of families on relief, the division of women in industry and minimum wage of the New York Department of Labor, with the cooperation and assistance of the statistical division of the Emergency Relief Bureau of New York City, analyzed the earnings, occupation, marital status, and number of dependents of employed women on relief whose earnings were insufficient to support themselves and their dependents.[1]

Two striking facts were brought out in the study. One is that nearly all types of occupations were represented among these 6,674 women, from domestic service to professions such as teaching and nursing. All had regular jobs during the month preceding the inquiry and worked either full or part time. Those employed on work-relief projects or in intermittent employment were not included. The second noteworthy fact developed by the analysis of case records is the extent of family responsibility of single women. The median number of dependents of single women covered in the study was 5.3; of married women, 3.6; and of widows and divorced women, 2.0.

Occupations and Earnings

THE occupations and median weekly earnings of women for whom this information was obtained are shown in table 1. Of the 6,674 case records studied, 132 were eliminated from further analysis, 67 of these because the women were self-employed, and 65 because the employment status could not be ascertained. The total number analyzed by occupation is thus 6,542, but wage data were obtained for only 6,280, of whom 4,008 were in occupations other than domestic service. The median weekly earnings of these 4,008 women were $7.62. Earnings of less than $2 were reported by 95 women, and

[1] New York. Department of Labor. Industrial Bulletin, February 1936: Wages and Family Responsibilities of Employed Women on Relief in New York City.

about 10 percent earned $15 or more per week. Low earnings resulted from part-time work in some cases, but in many instances the low weekly wages reported were for full-time work.

Table 1.—Occupations and Median Weekly Earnings of Employed Women on Relief in New York City, 1935

Industry or occupation	Number on relief	Percent of total	Median weekly earnings	Percent receiving less than $10 a week
Domestic service	2,272	34.8	$3.49	98.3
Housework	2,164	33.0		
Nursemaid	54	.9	4.18	
Laundress	54	.9	3.27	
Manufacturing industries	1,853	28.3	[1] 8.44	60.6
Clothing	953	14.6	[2] 8.25	63.3
Personal service	1,343	20.5	[3] 5.26	82.1
Janitress	695	10.6	[4] 4.18	97.3
Hotel and restaurant	212	3.2	[5] 6.09	75.4
Beauty shop	99	1.5	[6] 5.48	86.8
Clerical occupations	541	8.3	[7] 12.07	37.9
Trade	406	6.2	[8] 8.68	54.4
All others	127	1.9	[9] 7.13	64.7

[1] 1,787 reporting.
[2] 923 reporting.
[3] 1,222 reporting.
[4] 596 reporting.
[5] 203 reporting.
[6] 91 reporting.
[7] 512 reporting.
[8] 388 reporting.
[9] 99 reporting.

Family Responsibilities

THE minimum subsistence budget of the Emergency Relief Bureau during the summer of 1935, which, the article points out, is "admittedly meager", called for $10 a week for an employed woman living alone. Table 1 shows that except for the comparatively high-wage clerical group, the majority of the working women on relief in each occupational group averaged less than $10 a week. In two groups, domestic workers and janitresses, less than 2 percent earned more than that amount.

Yet the amount earned had to be shared with dependents by all but 429 of the women on relief, and the number of dependents was as high as 15 in two cases. For domestic workers the median number of dependents was 2.2; for the 4,254 women in other occupations the median was 4.4. Factory women bore the heaviest burdens in number of dependents, the median for this group being 5.1; 37 factory workers supported only themselves, while 81 had 10 or more dependents. The 429 women without dependents represented 12 percent of the domestic workers and 4 percent of those in other occupations. Only 6 of the 99 beauty-shop employees were without family responsibilities.

Analysis of case histories revealed the burden of large families combined with small incomes, of which the following are examples:

Manufacturing:

Of 212 women who had 6 dependents, 93 percent earned under $15.
Of 116 women who had 8 dependents, 13 percent earned under $5.
Of 20 women who had 11 dependents, none earned as much as $16.

Clerical:
Of 69 women who had 6 dependents, 62 percent earned under $15.
Of 12 women who had 9 dependents, none earned as much as $20.

Trade:
Of 55 women who had 5 dependents, 78 percent earned under $15.
Of 12 women who had 9 dependents, none earned as much as $18.

Janitress:
Of 18 women who had 7 dependents, none earned as much as $7.

Hotel and restaurant:
Of 28 women who had 5 dependents, none earned as much as $13.
Of 14 women who had 6 dependents, none earned as much as $13.

Beauty parlor:
Of 9 women who had 5 dependents, none earned as much as $11.

The dependents included about 6,000 children. The remainder were employable adults out of work, aged parents, and other relatives of the employed woman workers.

Single women constituted 16 percent of the domestic workers, and 62 percent of those in other occupational groups. Excluding domestic workers and janitresses, the majority of whom were married, single women comprised from over one-half to nine-tenths of the total number of employed women in each occupation on the relief rolls.

The case records time after time showed that it was the single women, most of them the daughters of the famliy, who were employed. In families having a large number of children, it was frequently the older daughter in the family who obtained employment while the married woman remained at home to take care of the household.

There were relatively few single women who had only themselves to support. Of the 343 domestic workers who were single, 60 had no dependents. In other occupations, only 33 of the 2,560 single women had no dependents. * * * In every industry there were a number of instances of individual single women responsible for large families. For all single women in occupations exclusive of domestic service, the median number of dependents was 5.3. Among these there were 210 unmarried workers, or 8 percent who were responsible for from 9 to 15 dependents. Of the 343 single domestics, 22 had from 9 to 15 dependents.

In about 90 percent of 6,300 families for which data on the number of wage earners were obtained, the employed woman on relief was the sole wage earner. In 172 familes (about 3 percent) two women were the only employed members, and the combined earnings of 3 workers, all women, in each of 6 families were insufficient to maintain those families without public assistance. Women were the sole support of 92.5 percent of these 6,300 families; in the remaining 7.5 percent the men of the family made some contribution.

EDUCATION AND TRAINING

Educational Qualifications in the Engineering Profession [1]

A FIRST degree in engineering is now almost a prerequisite in order to obtain professional status and a position. Postgraduate work, however, is important only in a few of the professional classes. The tendency of engineers to transfer from the course of college specialization to other classes of work is negligible. These are a few of the facts developed in the survey of the engineering profession,[2] which was undertaken by the Bureau of Labor Statistics in May 1935 at the request of the American Engineering Council.

Scope and Method

THE principal purpose of this survey was to determine how the engineers fared during the depression period. More specifically, the objectives were to determine the extent of unemployment, what kind of professional employment gave engineers the greatest protection against unemployment, where they found substitute employment, and their compensation between December 31, 1929, and December 31, 1934. However, to provide a comprehensive background for these data, the survey was extended to include the salient features of education and subsequent experience,[3] so that the nature of the general trends affecting the profession could more readily be determined. Unquestionably, a knowledge of trends is of inestimable value to administrators of professional engineering education and to the practicing and prospective engineer.

The data were obtained through the medium of a mail questionnaire, requesting information, for the three periods ending December 31, 1929, 1932, and 1934, on: Present city and State residence; marital status and number of dependents; type of education; employment; unemployment; earnings; membership in engineering societies; method of obtaining employment, together with information on

[1] Prepared by Andrew Fraser, Jr., of the Bureau's Division of Wages, Hours, and Working Conditions.

[2] The Bureau's studies have dealt almost entirely with wage-earning groups. The only other professional group recently studied were editorial employees of newspapers. For data on the results of that survey, see Monthly Labor Review, May 1935 (also reprinted as B. L. S. Serial R. No. 239.)

[3] This is the first of a series of summary articles covering the results of the survey. The detailed information will be published in bulletin form.

contract, patent, pension, and civil-service privileges; field of activity; functional classification; and professional class.[4] A copy of this questionnaire was sent to each of 173,151 engineers.

The mailing list for the questionnaire was compiled for the Bureau through the cooperation of National, State, and local engineering societies, and additional names were obtained from 32 State boards of engineer examiners and the deans of 156 engineering schools. At the time the requests for names were issued, there were known to be in existence 80 national, 42 State, and 197 local societies, and of these respectively 73, 39, and 121 submitted names from their past and present membership rosters. Obviously, since the cooperating bodies embraced every phase of professional activity, the original mailing list, from which duplications were eliminated, can be accepted with little question as being adequate.

Of the 173,151 questionnaires sent out, 58,388, or 33.7 percent, were returned with information; 5,883, or 3.4 percent, were returned as "not found"; and no replies were received for 108,880, or 62.9 percent. The net number of usable returns was 52,589, or 30.4 percent of the number of persons on the original mailing list, a most gratifying response, especially in view of the fact that no follow-up method was used.

The returns covered every State in the Union and the District of Columbia, ranging in number from 101 in Nevada to 7,659 in New York. In view of the small number of returns from individual States—in only 13 cases were more than 1,000 reports received from a single State, while in 24 States less than 500 were received—the States were grouped according to the census geographical divisions [5] with the single exception of the District of Columbia, which was segregated from the South Atlantic region and presented separately. This segregation was deemed advisable owing to the fact that the majority of engineers reporting from the District of Columbia were in the employ of the Federal Government.

The number of professional engineers reporting from each region and State appears in table 1. In this table the geographic divisions are arranged in descending order, according to the number of reports received.

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[4] Regarding the development of the questionnaire, see American Engineering Council, report of Committee on Engineering and Allied Technical Professions Concerning the Survey of the Engineering Profession, 1936 – 14 (mimeographed). This report will be published as an appendix in the bulletin.

[5] Special tabulations of a few of the larger States may later be published in the bulletin.

Table 1.—Distribution of Professional Engineers Reporting, by Geographical Division and State

Geographical division and State	Number reporting	Geographical division and State	Number reporting
United States	52,589	New England	4,674
		Connecticut	934
District of Columbia	948	Maine	322
East South Central	1,544	Massachusetts	2,717
Alabama	343	New Hampshire	227
Kentucky	402	Rhode Island	313
Mississippi	268	Vermont	161
Tennessee	531	West North Central	4,978
Mountain	2,434	Iowa	902
Arizona	369	Kansas	740
Colorado	908	Minnesota	1,265
Idaho	197	Missouri	1,224
Montana	291	Nebraska	398
Nevada	101	North Dakota	172
New Mexico	156	South Dakota	277
Utah	254	Pacific	5,651
Wyoming	158	California	4,389
West South Central	2,486	Oregon	427
Arkansas	171	Washington	835
Louisiana	481	East North Central	10,977
Oklahoma	509	Illinois	3,689
Texas	1,325	Indiana	1,316
South Atlantic	3,920	Michigan	1,951
Delaware	195	Ohio	2,999
Florida	626	Wisconsin	1,022
Georgia	592	Middle Atlantic	14,977
Maryland	628	New Jersey	3,323
North Carolina	421	New York	7,659
South Carolina	295	Pennsylvania	3,995
Virginia	678		
West Virginia	485		

The engineers reporting were grouped into nine major professional classes, as are shown in table 2. Each of the minor professional classes, too small to justify separate analysis, was combined with the major professional class to which it is most closely allied. The returns by major classes varied from 388 for ceramic engineers to 19,891 for civil engineers. Each of these groups was analyzed on a national basis, thus permitting comparisons between groups.

Table 2.—Geographical Distribution of the 9 Major Professional Classes of Engineers

Professional class	Geographical division										
	Total	District of Columbia	East South Central	Mountain	West South Central	South Atlantic	New England	West North Central	Pacific	East North Central	Middle Atlantic
United States	52,589	948	1,544	2,434	2,486	3,920	4,674	4,978	5,651	10,977	14,977
Agricultural	397	9	21	20	36	38	10	123	38	71	31
Architectural	538	10	8	20	22	29	44	107	30	139	129
Ceramic	388	3	11	2	5	22	10	38	26	169	102
Chemical	3,512	37	107	108	213	291	369	296	179	878	1,034
Civil	19,891	450	707	1,191	1,082	1,619	1,631	2,295	3,099	3,244	4,523
Electrical	11,443	195	286	385	489	856	1,080	991	920	2,412	3,829
Industrial	1,007	6	19	14	18	76	129	56	44	270	375
Mechanical	13,226	197	320	285	548	898	1,313	884	986	3,343	4,452
Mining and metallurgical	2,187	41	65	409	73	91	88	188	329	401	502

Nature of Educational Data

SINCE education is closely related to professional activity, information on this point was the first to be compiled for analysis, and a summary of the results, is presented in this article.

At the outset, it should be remarked that no specific information was requested in this survey concerning curricula in education. The only questions asked were with respect to the particular type of education received, and these types embraced secondary school, noncollegiate technical school, university, or college, including nongraduate, graduate, and postgraduate work. In each case, the questionnaire called for the number of years of attendance, the name of the institution, the course taken (whether liberal arts, civil engineering, etc.), and the date of graduation. Nevertheless, as there is a close relation between curricula and type of education, there is some justification for using the latter as a basis for analysis, especially since by so doing there is the decided advantage of obtaining a broad picture of the situation, which of course facilitates the subsequent analyses.

With more particular reference to trends, this article is concerned with (1) the prevalence of first degrees in engineering, (2) the extent of postgraduate work, (3) the tendency of engineers to transfer from the course of specialization to other professional fields, (4) the nature of the distribution as between all graduates and nongraduates of "other engineers",[6] and (5) the general relation of education to fields of activity and functional classifications.

University Training in Engineering

THE distribution of the nine professional classes by type of education in the country as a whole, as of 1934, is shown in table 3. In order to facilitate the analysis, the engineers reporting were divided into two groups, one including engineering graduates and the second embracing all "other engineers."

Engineering graduates are in turn divided into two groups—graduates whose professional class is the same as the college course in which they specialized and those whose professional class is different from the specialized college course. From this arrangement the importance of first degrees and of postgraduate work in engineering may be determined, first, with reference to the graduate group as a whole, and second, as related to the grand total reporting in each professional class. Thus, among the graduates who were in the profession for which they had specialized, the proportion having their first degrees ranged from 82.4 percent for agricultural engineers to

[6] Engineering graduates are those who reported having obtained an engineering degree from a college or university, while "other engineers" include all those who received a secondary school, noncollegiate, nongraduate, or nonengineering education.

95.9 percent for industrial engineers.[7] Among those who were in another engineering profession from that for which they had specialized, the range was from 75.0 percent for ceramic engineers to 97.5 percent for architectural engineers. Among all engineers reporting in each professional class, engineering graduates with first degrees ranged from 69.9 percent of the architectural engineers to 79.7 percent of the ceramic engineers. Hence, in each professional class as a whole the number of men with first degrees in engineering only strongly predominates.

Graduate study in engineering does not appear to be of any considerable importance as a prerequisite to practice in the engineering field. Of the graduates in engineering, those with master's degrees ranged from 3.6 percent for industrial engineers to 17.2 percent for agricultural engineers in the group practicing in the same profession for which they had specialized, and from 2.5 percent for architectural to 25.0 percent for ceramic engineers not in the same profession. Considering the grand total in each professional class, those with master's degrees ranged from 3.8 percent of all the civil engineers reporting to 14.0 percent of all the agricultural engineers reporting. This analysis seems to indicate that there has been little demand for master's degrees in engineering generally, although such degrees are evidently particularly important in certain professional lines, as in agricultural and chemical engineering, where the respective percentages are 14.0 and 10.9, followed closely by ceramic, mining and metallurgical, and electrical engineering.

None of the graduate architectural engineers who had specialized in that field in college had a doctor's degree in engineering. In the other professional classes the proportion with such degrees ranged from 0.2 percent among the civil engineers to 6.2 percent among the chemical engineers. Among the graduate engineers who were practicing in another branch of engineering work than that of their college course, none of the agricultural, architectural, or ceramic engineers had doctor's degrees; in the other branches of engineering the proportion ranged from 0.4 for mechanical engineers to 4.7 for mining and metallurgical engineers.

In regard to the extent to which engineers transfer from the course of specialization to other professional fields, it is sufficient to point out that the proportion of graduates whose course differs from their professional class ranges from 3.2 percent among electrical to 35.8 percent among industrial engineers.

As the table shows, of the 52,589 engineers reporting, only 4,413, or 8.4 percent, were graduates in engineering who were practicing in another branch of the profession than the one for which they had qualified in college. Hence, considering the fact that some transfers

[7] As shown in the table many also had degrees in the liberal arts.

in professional work are inevitable and that these are largely concentrated in but a few professional classes, it can only be concluded that this tendency is an insignificant factor. This is especially so with regard to the administration of professional engineering education, for if this tendency were very marked it would inevitably have reactions with regard to curricula. In other words, it may be concluded that by and large the respective curricula meet the needs of the profession.

Table 3.—Distribution of the 9 Professional Classes

	Type of education	Professional class											
		Agricultural			Architectural			Ceramic			Chemical		
		No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class
	Engineering graduates												
	Course same as professional class:												
1	First degree in engineering	201	82.4	50.6	338	94.2	62.8	294	90.2	75.8	2,488	84.3	70.9
2	Engineering only	200	82.0	50.3	329	91.7	61.2	289	88.7	74.5	2,385	80.8	68.0
3	Engineering, plus B. A. in liberal arts.	1	.4	.3	9	2.5	1.6	4	1.2	1.0	89	3.0	2.5
4	Engineering, plus M. A. in liberal arts.	----	----	----	----	----	----	1	.3	.3	6	.2	.2
5	Engineering, plus Ph. D. in liberal arts.	----	----	----	----	----	----	----	----	----	8	.3	.2
6	Master's degree in engineering	42	17.2	10.5	21	5.8	3.9	30	9.2	7.7	363	12.3	10.4
7	Engineering only	42	17.2	10.5	21	5.8	3.9	30	9.2	7.7	360	12.2	10.3
8	Engineering, plus B. A. in liberal arts.	----	----	----	----	----	----	----	----	----	3	.1	.1
9	Doctor's degree in engineering	1	.4	.3	----	----	----	2	.6	.5	100	3.4	2.8
10	Total	244	100.0	61.4	359	100.0	66.7	326	100.0	84.0	2,951	100.0	84.1
	Course different from professional class:												
11	First degree in engineering	97	87.4	24.5	38	97.5	7.1	15	75.0	3.9	121	84.0	3.5
12	Engineering only	92	82.9	23.2	38	97.5	7.1	14	70.0	3.6	117	81.2	3.4
13	Engineering, plus B. A. in liberal arts.	4	3.6	1.0	----	----	----	1	5.0	.3	4	2.8	.1
14	Engineering, plus M. A. in liberal arts.	1	.9	.3	----	----	----	----	----	----	----	----	----
15	Engineering, plus Ph. D in liberal arts.	----	----	----	----	----	----	----	----	----	----	----	----
16	Master's degree in engineering	14	12.6	3.5	1	2.5	.2	5	25.0	1.3	19	13.2	.5
17	Engineering only	14	12.6	3.5	1	2.5	.2	5	25.0	1.3	18	12.5	.5
18	Engineering, plus B. A. in liberal arts.	----	----	----	----	----	----	----	----	----	1	.7	----
19	Doctor's degree in engineering	----	----	----	----	----	----	----	----	----	4	2.8	.1
20	Total	111	100.0	28.0	39	100.0	7.3	20	100.0	5.2	144	100.0	4.1
	Other engineers												
21	Nonengineering graduates	13	----	3.2	36	----	6.7	16	----	4.1	212	----	6.0
22	Engineering graduates (with other degrees) in nonengineering fields.	1	----	.3	----	----	----	----	----	----	23	----	.7
23	College engineering course, unfinished	17	----	4.3	67	----	12.5	16	----	4.1	154	----	4.3
24	Noncollegiate technical-school engineers.	5	----	1.3	26	----	4.8	5	----	1.3	20	----	.6
25	Secondary-school engineers	6	----	1.5	6	----	1.1	5	----	1.3	3	----	.1
26	Total	42	----	10.6	135	----	25.1	42	----	10.8	412	----	11.7
27	Total, not reporting	----	----	----	5	----	.9	----	----	----	5	----	.1
28	Grand total	397	----	100.0	538	----	100.0	388	----	100.0	3,512	----	100.0

ngineers in the United States, 1934, by Type of Education

Professional class—Continued																	
Civil			Electrical			Industrial			Mechanical			Mining and metallurgical			Total			
No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	No.	Percent of total	Percent of professional class	
2,302	94.6	61.9	8,460	91.7	73.9	403	95.9	40.0	8,390	94.1	63.4	1,366	89.4	62.5	34,242	92.6	65.1	1
1,884	91.3	59.8	8,165	88.4	71.4	389	92.6	38.6	8,174	91.7	61.9	1,283	84.0	58.8	33,098	89.5	62.9	2
376	2.9	1.9	245	2.7	2.1	13	3.1	1.3	197	2.3	1.4	66	4.3	3.0	1,000	2.7	1.9	3
33	.3	.2	26	.3	.2	1	.2	.1	14	.1	.1	5	.3	.2	86	.2	.2	4
9	.1	-----	24	.3	.2	-----	-----	-----	5	-----	-----	12	.8	.5	58	.2	.1	5
680	5.2	3.4	699	7.6	6.1	15	3.7	1.5	483	5.4	3.7	144	9.4	6.5	2,477	6.7	4.7	6
672	5.1	3.4	690	7.5	6.0	13	3.1	1.3	479	5.4	3.7	141	9.2	6.4	2,448	6.6	4.6	7
8	.1	-----	9	.1	.1	2	.5	.2	4	-----	-----	3	.2	.1	29	.1	.1	8
22	.2	.1	63	.7	.6	2	.5	.2	42	.5	.3	18	1.2	.8	250	.7	.5	9
13,004	100.0	65.4	9,222	100.0	80.6	420	100.0	41.7	8,915	100.0	67.4	1,528	100.0	69.8	36,969	100.0	70.3	10
1,572	94.9	7.8	333	92.0	3.0	343	95.0	34.0	1,356	94.1	10.3	234	84.1	10.7	4,109	93.1	7.8	11
1,521	91.7	7.6	322	88.9	2.9	332	91.9	32.9	1,309	90.9	10.0	218	78.4	10.0	3,963	89.8	7.6	12
49	3.0	.2	10	2.8	.1	10	2.8	1.0	38	2.6	.3	12	4.3	.5	128	2.9	.2	13
1	.1	-----	-----	-----	-----	1	.3	.1	6	.4	-----	2	.7	.1	11	.2	-----	14
1	.1	-----	1	.3	-----	-----	-----	-----	3	.2	-----	2	.7	.1	7	.2	-----	15
75	4.5	.4	25	6.9	.2	15	4.2	1.5	79	5.5	.6	31	11.2	1.4	264	6.0	.5	17
73	4.4	.4	24	6.6	.2	15	4.2	1.5	75	5.2	.6	31	11.2	1.4	256	5.8	.5	18
2	.1	-----	1	.3	-----	-----	-----	-----	4	.3	-----	-----	-----	-----	8	.2	-----	16
10	.6	.1	4	1.1	-----	3	.8	.3	6	.4	-----	13	4.7	.6	40	.9	.1	19
1,657	100.0	8.3	362	100.0	3.2	361	100.0	35.8	1,441	100.0	10.9	278	100.0	12.7	4,413	100.0	8.4	20
457	-----	2.3	206	-----	1.8	33	-----	3.3	240	-----	1.8	91	-----	4.2	1,304	-----	2.5	21
149	-----	.7	119	-----	1.0	23	-----	2.3	174	-----	1.3	9	-----	.4	498	-----	.9	22
2,950	-----	14.8	862	-----	7.6	97	-----	9.6	1,299	-----	9.9	189	-----	8.7	5,651	-----	10.8	23
1,124	-----	5.7	517	-----	4.5	52	-----	5.2	879	-----	6.7	55	-----	2.5	2,683	-----	5.1	24
511	-----	2.6	140	-----	1.2	18	-----	1.8	245	-----	1.8	33	-----	1.5	967	-----	1.8	25
5,191	-----	26.1	1,844	-----	16.1	223	-----	22.2	2,837	-----	21.5	377	-----	17.3	11,103	-----	21.1	26
39	-----	.2	15	-----	.1	3	-----	.3	33	-----	.2	4	-----	.2	104	-----	.2	27
19,891	-----	100.0	11,443	-----	100.0	1,007	-----	100.0	13,226	-----	100.0	2,187	-----	100.0	52,589	-----	100.0	28

Other Engineers

In the group of "other engineers", 1,304, or 2.5 percent of the non-engineering graduates reporting, had degrees in the liberal arts. This is not a very large proportion but it is interesting to note that this group has remained fairly constant since as far back as 1889. It is difficult to explain how such a group is able to attain professional status without formal education in the engineering field, although this is possible in some instances, such as chemical, ceramic, mining and metallurgical, and architectural engineering. Nevertheless, it can be safely concluded that since graduates of academic courses have been in engineering fields over a long period, the probability is that they will continue to remain a factor in the profession.

Only 498 (0.9 percent of the grand total) engineering graduates were reported as with further study in nonengineering fields. These persons had originally graduated in engineering, but later they swung into other fields of study, such as economics, business administration, law, etc. The small number found in this class is a substantiation of the fact that there is little transfer of occupation not only within the profession but also to preparation for professional work in fields other than engineering.

Engineering educators have for many years been aware that the "mortality" (i. e., the proportion dropping out before completion of course) among engineering students is very high, this having been disclosed by many previous studies. The number covered by the present survey who reported that they did not finish the engineering course in college was 5,651, or 10.8 percent of the total. Taking the individual professional classes, the largest percentage was found among civil engineers, 14.8, ranging from that point downward to 4.1 percent among the ceramic engineers.

Noncollegiate technical-school engineers numbered 2,683 or 5.1 percent of the grand total reporting. With reference to the individual professional classes, the largest percentages are found in mechanical, civil, industrial, architectural and electrical engineering, being respectively 6.7, 5.7, 5.2, 4.8, and 4.5, while the range for the four remaining classes is from 0.6 for chemical to 2.5 percent for mining and metallurgical engineers.

Of 967 engineers reported as having had only a secondary-school education, the largest numbers were civil and mechanical engineers, the total of these being 756, or 78.2 percent of the 967 reporting.

In order to determine more clearly the nature of the general trends with regard to the "other engineers" group, an analysis of the distribution as between all graduates and the nongraduates of the "other engineers" is necessary. Of the engineers classified as "recent" since they entered the profession after the 1930 census, 18,451, or

8.48 percent, reported as having graduated between 1930 and 1934. Contrasted to this group, there are only 286, or 1.52 percent, "other engineers", i. e., those who did not report graduation but were born within the period of 1910–15. On the other hand, there are 33,852 older engineers, of whom 24,837, or 73.4 percent, reported graduation up to and including 1929. This may be compared, however, with 9,015 "other engineers" (26.57 percent) who did not report graduation but were born within the period ending with 1909. The enormous decrease in the ratio of "other engineers" to graduates as between the older and recent engineers is the best evidence that graduation in engineering is almost a necessity for entry into the profession.

The demand for graduation as a qualification for professional status in engineering is not a recent development; it is a growing trend that may be traced back for more than 50 years. This is clearly brought out by table 4, which presents data for the three classes of nongraduates of the "other engineers", showing in each case their distribution by year of birth as of 1934. In the case of engineers who did not complete their college course the percentage in each age classification rises gradually to 16.2 for those born in 1900–04, after which it declines to 3.9 for the persons born during 1910–14. The decline in the percentage is even more marked in the case of engineers from noncollegiate technical and secondary schools. Among engineers in the first of these two groups the peak was reached with a percentage of 17.8 for those born in 1890–94, dropping to only 1.9 percent for the period 1910–14. Likewise, for engineers in the latter schools, the highest point, namely 17.1 percent, was attained for 1885–89, following which it fell to only 1.7 percent in 1910–14. The small percentage of recent engineers, compared to the large percentage of older engineers, in each of these three groups of nongraduates again emphasizes the fact that the chances of attaining professional status without a college degree have markedly decreased.

Fields and Functions

DATA were requested as to the field of activity and the functional classification of the engineer.[8] Only those engineers who had an engineering job as of December 31, 1934, were interrogated on these points; this explains the two totals in table 5, given as "reporting" and "not reporting" the field of activity and functional classification in the nine professional classes.

[8] The fields of activity were construction, extractive, public utilities, transportation, manufacturing, personal service, agriculture and forestry, and Government work, while the functional classifications were design and research, construction, operation, consulting, teaching, sales and general administration and management.

Table 4.—Distribution of Nongraduates Among "Other Engineers", by Year of Birth in the United States, 1934

Education	Born in period—	Total		Professional class								
		Number	Percent	Agricultural	Architectural	Ceramic	Chemical	Civil	Electrical	Industrial	Mechanical	Mining and metallurgical
Nongraduate engineers:												
College engineering course unfinished	1910–14	218	3.9	------	2	1	15	94	49	5	39	
	1905–09	738	13.1	------	12	4	32	352	153	16	150	
	1900–04	914	16.2	3	9	3	21	443	198	13	211	
	1895–99	899	15.9	3	6	3	22	435	157	29	215	
	1890–94	790	14.0	7	13	2	17	412	101	13	202	
	1885–89	790	14.0	1	13	3	16	450	88	11	176	
	1880–84	596	10.5	3	5	-----	14	341	57	6	144	
	1875–79	348	6.1	------	2	-----	7	212	34	2	76	
	1874 [1]	358	6.3	------	5	-----	10	211	25	2	86	
Total	------	5,651	100.0	17	67	16	154	2,950	862	97	1,299	1
Noncollegiate technical school	1910–14	52	1.9	------	------	-----	1	14	22	-----	13	
	1905–09	224	8.3	------	2	2	2	88	84	3	43	-----
	1900–04	360	13.4	------	3	-----	3	144	99	8	100	
	1895–99	375	14.0	1	3	1	2	156	84	7	113	
	1890–94	476	17.8	1	4	-----	6	201	68	14	175	
	1885–89	452	16.8	1	6	-----	3	186	70	6	169	1
	1880–84	358	13.4	------	4	-----	1	169	49	8	119	
	1875–79	199	7.4	1	1	2	2	84	28	6	72	
	1874 [1]	187	7.0	1	3	-----	------	82	13	-----	75	1
Total	------	2,683	100.0	5	26	5	20	1,124	517	52	879	5
Secondary school	1910–14	16	1.7	------	------	1	------	5	7	-----	2	1
	1905–09	88	9.1	------	------	-----	2	49	25	-----	12	-----
	1900–04	110	11.4	1	------	-----	1	57	24	-----	25	2
	1895–99	128	13.2	------	------	4	------	58	21	3	36	6
	1890–94	152	15.7	2	1	-----	------	78	17	4	45	5
	1885–89	165	17.1	3	2	-----	------	86	19	7	43	5
	1880–84	108	11.1	------	------	-----	------	56	13	1	35	3
	1875–79	83	8.6	------	------	-----	------	50	8	1	20	4
	1874 [1]	117	12.1	------	3	-----	------	72	6	2	27	7
Total	------	967	100.0	6	6	5	3	511	140	18	245	33
Total nongraduate engineers	------	9,301	17.7	28	99	26	177	4,585	1,519	167	2,423	27
Graduate engineers	------	43,288	82.3	369	439	362	3,335	15,306	9,924	840	10,803	1,910
Grand total	------	52,589	100.0	397	538	388	3,512	19,891	11,443	1,007	13,226	2,187

[1] Or earlier.

Table 5.—Distribution of Engineers by Zones of Interest and Functional Classifications in the United States, 1934

Classification	Professional classes									
	Agricultural		Architectural		Ceramic		Chemical		Civil	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Field of activity										
Construction	29	9.4	91	39.4	5	1.9	32	1.4	2,148	15.4
Extractive industries	------	------	2	.9	8	3.0	147	6.7	447	3.2
Public utilities	13	4.3	11	4.7	1	.4	104	4.7	484	3.5
Transportation	------	------	------	------	------	------	18	.8	517	3.7
Manufacturing	21	6.8	23	10.0	231	86.8	1,592	72.0	705	5.1
Personal service	85	27.7	11	4.7	14	5.3	171	7.7	808	5.8
Agriculture and forestry	1	.3	------	------	------	------	------	------	------	------
Government work [1]	158	51.5	93	40.3	7	2.6	148	6.7	8,812	63.3
Total	307	100.0	231	100.0	266	100.0	2,212	100.0	13,921	100.0
Total not reporting	90	------	307	------	122	------	1,300	------	5,970	------
Functional classification										
Design and research	69	22.5	72	31.2	77	28.9	727	32.9	3,030	21.8
Construction	85	27.7	102	44.1	9	3.4	48	2.1	6,368	45.7
Operation	22	7.1	13	5.7	138	51.9	1,051	47.5	1,741	12.5
Consulting [2]	34	11.1	17	7.3	8	3.0	95	4.3	874	6.3
Teaching	62	20.2	9	3.9	11	4.2	128	5.8	553	4.0
Sales	12	3.9	7	3.0	8	3.0	67	3.1	175	1.2
General administration and management	23	7.5	11	4.8	15	5.6	96	4.3	1,180	8.5
Total	307	100.0	231	100.0	266	100.0	2,212	100.0	13,921	100.0
Total not reporting	90	------	307	------	122	------	1,300	------	5,970	------

Classification	Professional classes									
	Electrical		Industrial		Mechanical		Mining and metal		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Field of activity										
Construction	184	2.8	35	5.1	762	8.7	22	1.5	3,308	9.6
Extractive industries	126	1.9	25	3.7	328	3.7	684	47.3	1,767	5.1
Public utilities	2,634	39.7	60	8.8	734	8.4	19	1.3	4,060	11.8
Transportation	199	3.0	19	2.8	429	4.9	4	.2	1,186	3.5
Manufacturing	2,231	33.7	456	66.8	4,841	55.2	399	27.7	10,499	30.4
Personal service	602	9.1	55	8.1	866	9.9	160	11.0	2,772	8.1
Agriculture and forestry	------	------	------	------	1	(3)	------	------	2	(3)
Government work [1]	650	9.8	32	4.7	803	9.2	160	11.0	10,863	31.5
Total	6,626	100.0	682	100.0	8,764	100.0	1,448	100.0	34,457	100.0
Total not reporting	4,817	------	325	------	4,462	------	739	------	18,132	------
Functional classification										
Design and research	1,846	27.9	92	13.5	2,960	33.8	281	19.4	9,154	26.6
Construction	717	10.8	42	6.1	841	9.6	97	6.7	8,300	24.1
Operation	2,261	34.1	229	33.6	2,271	25.9	629	43.4	8,355	24.2
Consulting [2]	423	6.4	67	9.8	507	5.8	161	11.2	2,186	6.4
Teaching	487	7.3	24	3.6	635	7.2	127	8.7	2,036	5.9
Sales	434	6.6	41	6.0	777	8.9	28	2.0	1,549	4.5
General administration and management	458	6.9	187	27.4	773	8.8	125	8.6	2,868	8.3
Total	6,626	100.0	682	100.0	8,764	100.0	1,448	100.0	34,457	100.0
Total not reporting	4,817	------	325	------	4,462	------	739	------	18,132	------

[1] Includes Federal, State, county, and municipal.
[2] Includes independent consultants and employees of consulting firms.
[3] Less than 1/10 of 1 percent.

Strictly speaking, the fields of activity and functional classifications may be more simply described as the branches of engineering engaged in and the functions performed in those branches. With respect to the field of activity, this is quite obvious in some instances, such as mining and metallurgical engineering.

Of the agricultural engineers reporting as employed on December 31, 1934, no less than 51.5 percent were in Government work, probably due to the great demand for engineers in such work as soil erosion, irrigation, etc. Personal service [9] absorbed 27.7 percent of the total, the remaining agricultural engineers being distributed in construction, manufacturing, public utilities, and private agriculture and forestry. Referring to the distribution by functional classification, 27.7 percent of the agricultural engineers were in construction, 22.5 percent in design and research, and 20.2 percent in teaching, the proportions in the remaining classifications ranging from 3.9 percent for sales to 11.1 percent for consultation.

The architectural engineers also found Government work the best recent possibility for employment, with 40.3 percent so employed; 39.4 percent were in private construction, and only 10 percent in manufacturing, the remainder being in public utilities, personal service, and extractive industries. As regards the functional classifications, 44.1 percent were in construction and 31.2 percent in design and research, the range for the remaining classifications being from 3.0 for sales to 7.3 percent for consulting.

Ceramic and chemical engineers are very similar with regard to their distributions in both the fields of activity and functional classifications. In each case, the largest percentage is to be noted in manufacturing, the figures being 86.8 for ceramic and 72 for chemical engineering. The number engaged in Government work formed only 6.7 percent of the chemical and 2.6 percent of the ceramic engineers. For the functional classifications, each of these two professional classes had the largest percentages in design and research and in operation.

Referring to civil engineers, the percentage of those employed by Governmental agencies is no less than 63.3, the next highest being those in private organizations rendering engineering service, with only 15.4 percent. This unusually large relative number in Government work is explained primarily by the almost complete cessation during the period immediately preceding the survey, of civil-engineering opportunities in the normal fields of activity other than Government. In the distribution of the civil engineers with regard to functional classifications, construction leads with 45.7 percent, fol-

[9] Includes education, publications, professional and trade organizations, real estate, banking, insurance, and wholesale and retail establishments.

lowed by design and research with 21.8 percent, and operation with 12.5 percent—a total of 90 percent in these three classifications.

As anticipated, the percentage of electrical engineers in public utilities is high, being 39.7, but it is also interesting to note that as many as 33.7 percent reported manufacturing as their field of activity. No less than 9.8 percent were in Government work, and 9.1 percent were in personal service. Again (as for civil engineers) the first three functional classifications cover 72 percent of all reporting, although the order is operation with 34.1 percent, design and research with 27.9 percent and construction with 10.8 percent.

Industrial and mechanical engineers are largely in manufacturing, the former having 66.8 percent and the latter 52.2 percent of the total. In the case of industrial engineers, the next highest percentages were 8.8 in public utilities and 8.1 in personal service, and for mechanical engineers 9.9 in personal service, 8.7 in construction, and 8.4 in public utilities. With reference to the distribution, by functional classification, of the 682 industrial engineers reporting, 33.6 percent were in operation, 27.4 percent were in general administration and management, and 13.5 percent were in design and research. Of the 8,764 mechanical engineers, the highest percentage, 33.8, was in design and research, while 25.9 percent were in operation, 9.6 in construction, and 8.8 in administration and management.

Naturally, the highest percentage of mining and metallurgical engineers is in extractive industries, where 47.3 percent were employed, although it is interesting to note that no less than 27.7 percent reported manufacturing as their field of activity. The next two highest were 11 percent each for personal service and Government work. As for the distribution by functional classification, the highest percentage appears in operation with 43.4, followed by design and research with 19.4. However, it will be seen that there is some importance attached to consulting as far as this professional class is concerned, as 11.2 percent report this as their functional classification.

When all engineers reporting the field of activity are considered, the order of distribution is as follows: 30.4 percent in manufacturing, 31.5 percent in Government work, 11.8 percent in public utilities, 9.6 percent in construction, 8.1 percent in personal services, and 5.1 percent in extractive industries. For functional classification, design and research is first with 26.6 percent, operation with 24.2 percent, construction with 24.1 percent, general administration and management with 8.3 percent, consulting with 6.4 percent, teaching with 5.9 percent, and sales with 4.5 percent.

The import of this analysis is that there are certain well-defined fields of activity for each of the professional classes. In the case of agricultural and civil engineers it is obviously Government work.

Architectural engineers are fairly well divided between construction and Government work; ceramic, chemical, industrial and mechanical engineers are largely concentrated in manufacturing; electrical engineers are found mostly in public utilities and manufacturing; and mining and metallurgical engineers appear mostly in the extractive, industrial, and manufacturing zones. For each of the professional classes the outstanding functional classifications are design and research, construction, and operation.

INDUSTRIAL ACCIDENTS

Accidents at Coal Mines in the United States, 1934

PRELIMINARY figures on employment and accidents at coal mines in the United States in 1934 [1] show that fatal accidents were fewer in that year in proportion to man-hours of work performed than in any other year except 1916 and 1933; and, except for 1933, the rate for nonfatal injuries was lower than for any year since 1930, when data on nonfatal accidents were first collected.

Accidents in and about the mines killed 1,226 men and injured 68,008, each injury involving the disability of an employee for more than the remainder of the day on which the accident occurred.

The fatality rate in 1934 was 1.59 per million man-hours of employment, as compared with 1.48 for the year 1933, and the rate for nonfatal injuries was 88.39, as compared with 85.26 for the preceding year.

The following figures summarize productivity and accident records for all coal mines in the United States (both anthracite and bituminous) for the 5-year period, 1930 to 1934, inclusive.

Productivity and Accidents in United States Coal Mines, 1930–34

Year	Ton per man-hour	Accidents per million man-hours
1930	0.535	105.6
1931	.549	101.7
1932	.565	94.6
1933	.533	86.7
1934	.541	90.0

Fatal Industrial Accidents in Canada, 1935

THE total number of fatal industrial accidents in Canada reported for the calendar year 1935 was 972, of which 18.52 percent occurred in transportation and public utilities. The next highest percentage of fatalities—17.49—was recorded for mining, nonferrous

[1] U. S. Bureau of Mines. Employment and Accidents at Coal Mines in the United States, 1934. Washington, May 5, 1936. (Health and Safety Statistics No. 232.; mimeographed.)

smelting, and quarrying. These records and those for other industrial groups are given in the accompanying table, based on a more detailed tabulation in the Canadian Labor Gazette of March 1936 (pp. 289–298). Some of the fatalities included were caused by industrial diseases.

Total Industrial Accidents in Canada, 1935

Industry	Fatalities		Number gainfully employed (latest census)
	Number	Percent of total	
All industries	972	100.00	
Agriculture	122	12.55	1,128,188
Logging	114	11.73	49,960
Fishing and trapping	37	3.81	70,634
Mining, nonferrous smelting, and quarrying	170	17.49	73,506
Manufacturing	123	12.65	479,186
Construction	97	9.98	256,282
Electric light and power	24	2.47	14,974
Transportation and public utilities	180	18.52	
Trade	39	4.01	387,315
Finance	1	.10	92,317
Service	65	6.69	767,705

HEALTH AND INDUSTRIAL HYGIENE

Committees for Prevention of Silicosis in Industry

THE problem of silicosis as an industrial hazard has been the subject of increasing concern over a considerable period of time and in recent months the Secretary of Labor has taken active steps to formulate a program for the control and, so far as possible, the elimination of the hazard. A conference called by Secretary Perkins met in Washington, February 26, 1936, to consider plans which can be recommended generally for the prevention of silicosis. The conference was under the chairmanship of Verne A. Zimmer, Director of the Division of Labor Standards, and was attended by representatives of employers' and workers' groups, health officials, insurance companies, and engineering and technical experts. It decided, after discussion of the problem, that it was essential to have a much larger representation of the various interests involved, before deciding upon a program. A second conference was therefore called by the Secretary for April 14, which was attended by about 135 delegates affording a much wider representation of specially interested groups.

In opening the conference, the Secretary of Labor gave a general outline of the problem from the standpoints of the serious physical disability resulting from exposure to dusts containing silica, the numbers exposed to the hazard, and measures for the prevention of silicosis. The Secretary said, in part:

> Silicosis, for which we know no cure, should be prevented. The fact that it has been prevented in certain industries where there is exposure is sufficient grounds for making us believe that it can be successfully combated in practically all industries, and that every effort should be made to study the particular needs and problems of those industries so as to devise ways suitable for the control of the disease.
>
> The technique of silicosis prevention lies in keeping the dust from getting into the air which workers breathe. This can be done by different types of ventilation—not necessarily general ventilation, but specialized control and collection of the dust at the point of origin so that it does not escape into the workroom.
>
> The use of wetting-down processes is also often helpful. The keeping of rooms clean, the cleaning of walls, floors, and machinery is also of assistance. The wearing of positive-pressure masks is a possible method of control when nothing else is available, but this is not practicable in most places and under most circumstances. It is difficult for men to do an 8-hour day wearing such a mask, but for certain short-time exposures it may be appropriate.

Silicosis is caused by breathing very small particles of dust containing silica. The particles which are too small to be seen in the form of dust are the ones which are the most dangerous since, because of their minute size, they reach the small air cells of the lungs, penetrate the lining membranes, and cause irritation. This, in turn, causes the replacement of healthy tissue by fibrous or scar tissue.

The concentration of the dust is another test of the degree of the hazard; also, the length of time a worker has been exposed. A short exposure may not create any particular hazard and may not cause any after effects in the lung tissue. The degree of concentration of the dust and the length of exposure are extremely important factors.

The symptoms are not very well known and are extremely difficult for the layman to recognize, also difficult for the physician to recognize; but in general, one gets the picture—a general malaise, shortness of breath, early fatigue, sometimes with some slight visible symptoms, but usually not. The actual recognition and diagnosis of silicosis can scarcely be made without an X-ray examination. The symptoms of tuberculosis are often confused with the symptoms of silicosis, and, in fact, silicosis and tuberculosis may be present in the same individual and may be related to each other, thus increasing the danger to the individual.

Many personal damage suits have been brought by workers who have acquired silicosis in the course of their employment, and are not covered by workmen's compensation laws. These suits have proved costly and the attention of industrial and legal groups in every State has been riveted upon silicosis and how to deal with it. An extremely expensive economic situation ensues if everyone who acquires silicosis can bring a damage suit. There has been, therefore, considerable canvassing of the laws and of methods by which this disease can practicably be brought under the workmen's compensation laws.

The appointment of four committees to deal with different aspects of the problem was announced by the Secretary on May 3. The committees are as follows: Committee on the Prevention of Silicosis through Medical Control, chairman, Surgeon R. R. Sayers, United States Public Health Service, Washington, D. C.; Committee on the Prevention of Silicosis through Engineering Control, chairman, Warren A. Cook, State Department of Health, Hartford, Conn.; Committee on Economic, Legal, and Insurance Phases of the Silicosis Problem, chairman, V. P. Ahearn, National Sand & Gravel Association, Washington, D. C.; and Committee on Regulatory and Administrative Phases of the Silicosis Problem, chairman, L. Metcalfe Walling, labor commissioner, Providence, R. I.

HOUSING CONDITIONS

Federal Housing Loans to Flood Sufferers

FLOOD sufferers are assured assistance in the form of direct and federally insured loans, under liberalized terms, for replacing, rebuilding, and refitting their homes and other property, under an act approved April 17, 1936 (Public No. 525, 74th Cong., 2d sess.). The law providing relief amends the legislation establishing the Reconstruction Finance Corporation and the National Housing Act, to allow owners, tenants, and local governments to secure aid.

The Reconstruction Finance Corporation legislation, which was amended in 1934 to permit loans for repairing damage caused by floods or other catastrophes, has been further amended to permit loans to corporations, partnerships or individuals, municipalities or political subdivisions of States or of their public agencies, including school boards, school districts, and water, sewer, drainage, and flood-control districts. Such funds may be used to finance "the repair, construction, reconstruction, or rehabilitation of structures or buildings, including such equipment, appliances, fixtures, machinery, and appurtenances" as the Corporation may deem proper, and to repair power systems, etc., damaged in 1935 and 1936. Acquisition of buildings and real and personal property is also authorized, to replace property destroyed or made unfit for use by reason of catastrophe.

Collateral acceptable for such a loan is a lien on the existing or substituted property. However, for loans on State or other public property, payment from taxation or tax-anticipation warrants is substituted. Obligations are payable in from 10 to 20 years according to the kind of property on which the loan is made.

The term during which disbursements are authorized ends January 23, 1939. Loans may not exceed an aggregate of $50,000,000.

Title I of the National Housing Act was amended to permit the Administrator of the Federal Housing Administration to insure lending institutions against losses in making advances of credit, up to January 1, 1937, or an earlier date if the President determines that the emergency has passed, to finance home owners and tenants under lease for at least 1 year in rebuilding and replacing structures destroyed by earthquake, flood, and a number of other catastrophes in 1935 or 1936. Loans may be insured for buildings on the site of razed

structures or near the damaged or destroyed property. Insurance is limited to 10 percent of the loans by any financial institution.

These loan terms differ somewhat from those allowed to home owners and tenants in general under the modernization and repair provisions of the Housing Act,[1] in that funds may be used for new buildings and not only to improve those already standing. The limits on the amounts to be loaned are identical for sufferers from floods and other catastrophes and for persons desiring to modernize existing quarters, that is a maximum of $2,000, except in financing apartments, hotels, offices, hospitals, etc., when the loan, advance of credit, or purchase may not exceed $50,000. The liability of the Federal Government in insuring loans is restricted to $100,000,000 for aid to flood sufferers and other groups seeking insured loans.

Status of British Building and Loan Associations

ASSETS of building societies (building and loan associations) in Great Britain increased 537 percent between 1920 and 1934 and outstanding mortgages increased nearly 600 percent in the same period. At the same time the interest rate on loans gradually decreased from 6 percent to slightly over 5 percent. These and other facts relating to the phenomenal growth of British building societies were brought out in a recent survey,[2] from which the following data are taken. In 1913 assets increased 1¼ million pounds;[3] between 1920 and 1924 the average annual increase was about 14½ million pounds; and in 1934 it was nearly 54 million pounds. The total assets at the close of the latter year amounted to 555 million pounds of which about 85½ percent was in outstanding mortgages. A large part of the development of building societies occurred in a period of depression. This is attributed in part to the fact that during the depression real wages in Great Britain did not shrink so much as prices. The study further discloses that large societies have tended to increase in number and individual assets and that the greatest expanion of the societies has occurred in the North of England and the London area. It is pointed out that the "friendly society" type of building agency, under local direction and with a personal link between lenders and borrowers, is gradually giving way to the large-scale organization with branches geographically scattered, resembling the modern banking institution.

[1] See Monthly Labor Review, May 1936, (p. 1244).
[2] Supplement to The Economist, London, Apr. 11, 1936.
[3] Pound sterling at old par=$4.8665.

Post-War Developments

THE greater part of the growth of the building societies has occurred since the World War. Prior to that time the movement was steady rather than progressive and on the whole localized, but the post-war changes were so far-reaching as to deserve the term "revolutionary." The expansion of societies has brought about a concentration of initiative in the hands of a minority of the total societies but the smaller societies have not gone out of existence and act as a constant brake on any tendency to uniformity of practice.

Table 1 shows the total assets of all societies and the balance due on mortgages at the end of each year—1913, 1920, and 1924 to 1934, inclusive.

Table 1.—Growth in Assets and Balance Due on Mortgages, British Building Societies, 1913, 1920, and 1924–34

Year	Assets (in millions of pounds [1])		Balance due on mortgages (in millions of pounds [1])		Year	Assets (in millions of pounds [1])		Balance due on mortgages (in millions of pounds [1])	
	Total	Increase during year	Total	Increase during year		Total	Increase during year	Total	Increase during year
1913	65.4	1.2	61.6	1.3	1929	312.7	44.2	268.1	40.6
1920	87.1	9.8	68.8	10.9	1930	371.2	58.5	316.3	48.2
1924	144.9	20.2	119.7	20.9	1931	419.2	48.0	360.2	43.9
1925	169.2	24.3	145.9	26.2	1932	469.3	50.1	388.4	28.2
1926	193.9	24.7	171.2	25.3	1933	501.1	31.8	423.5	35.1
1927	223.3	29.4	197.7	26.5	1934	555.0	53.9	475.7	52.2
1928	268.5	45.2	227.5	29.8					

[1] Pound sterling at old par=$4.8665.

Summary statistics of number of shareholders, depositors, and borrowers have been compiled since 1928 and are given in table 2 for all years through 1934.

Table 2.—Number of Societies, Share Investors, Depositors, and Borrowers of British Building Societies, 1928 to 1934

Year	Total number of—				Year	Total number of—			
	Societies on register	Share investors	Depositors	Borrowers		Societies on register	Share investors	Depositors	Borrowers
1928	1,035	1,130,066	356,549	553,884	1932	1,014	1,692,167	545,648	868,794
1929	1,026	1,265,329	393,829	628,933	1933	1,013	1,747,980	631,371	948,523
1930	1,026	1,449,432	428,343	720,443	1934	1,007	1,856,491	694,042	1,066,327
1931	1,013	1,577,905	465,173	802,534					

It is not possible to arrive at a conclusion as to what proportion of the population of Great Britain participates in the activities of the building societies because many depositors are also share investors and the same person may have accounts in more than one organization. Allowing for possible overlapping, it is believed that there are

fewer borrowers than investors in building societies but a significant number of borrowers are stated to be investors as well. The average depositor's balance has increased more rapidly than the shareholders' balance, but shareholding as such grew faster than deposits between 1928 and 1934.

Interest Rates

THE trend was definitely toward lowered interest rates in the last 6 years covered by the study. As it became increasingly difficult to place money advantageously in industry and the war loan was converted at lower rates, money was attracted to building societies. Shares paid 4 percent and were tax free and deposits brought 3¾ percent. Societies found it necessary to curtail the acceptance of new funds and ultimately interest on shares and deposits was reduced and some of the advantages of cheap money were passed on to borrowers, but not on a uniform basis. To show the movement in average effective rates on shares, deposits and mortgage loans, computations have been made in the Economist survey of interest rates based on the mean of the opening and closing totals for shares, deposits, and mortgages, as being the most representative figure to which the totals of share, deposit, and mortgage interest apply. Complete accuracy is not claimed for the results but they show a decrease in interest rate from 4.38 percent in 1925 to 3.55 in 1935 for shares, from 3.85 to 2.97 for deposits, and from 5.85 percent to 5.20 for mortgages. Most of the reduction in interest on shares and deposits occurred in the period beginning with 1932. Interest on mortgages was reduced less than on shares and deposits, but the report states that on the average money was obtained more cheaply than 5.20 percent at the time of the study.

Mortgage Placement

OF THE almost 2½ million houses built in England and Wales between 1919 and 1934, Sir Harold Bellman estimates that nearly 1½ million were either erected or purchased with the help of building societies. While business in Scotland has increased, the importance of building societies in that region is still small.

Figures have been compiled to show the size of mortgages placed by 98 societies for 6 selected years between 1925 and 1935. In this period mortgages of less than £500 decreased slightly, from 46.8 to 44.3 percent of the total; those of £500 to £1,000 increased appreciably, from 30.7 to 41.4 percent of the total; those of £1,000 to £3,000 decreased from 13.7 to 7.5 percent; those of £3,000 to £5,000 from 3.1 to 1.9 percent; and those over £5,000 from 5.5 to 3.7 percent of the total. Since the building-society movement is designed to aid the owner-occupier, over 85½ percent of total loans have recently been made to those able to afford houses of up to £1,000 in value.

COOPERATION

Activities of Consumers' Cooperative Wholesale Societies in 1935

A DECIDED improvement in business in 1935 as compared with 1934, increased earnings, and greater benefits to members are the outstanding features disclosed by reports received by the Bureau of Labor Statistics from the cooperative wholesale societies. Although in the United States the development of cooperative wholesaling has lagged behind that of cooperative retailing, the events of the past few years seem to indicate a solid growth which augurs well for the future.

The 12 regional wholesale associations for which reports were received had a combined wholesale business in 1935 amounting to $27,088,163. Through their operations net savings of $776,883 were effected, of which the sum of $407,057 was returned to member societies as refunds on their patronage and $64,677 was paid in interest on share capital.

Eleven of these organizations at the end of the year were serving 1,577 member (retail) societies; unaffiliated cooperative organizations which were making purchases through the wholesales numbered 273. In addition to the wholesale operations, 6 of the central organizations were running retail branches to the number of 67. Three had found it necessary, in order to cover their trading territory adequately, to open branch distribution warehouses; one organization had 6 such warehouses.

More than a million dollars in paid-in share capital, reserves in excess of $400,000, and total assets of well over 3 million dollars at the end of 1935 were reported.

Comparison of reports for societies for which data are available for both 1934 and 1935 shows an increase of over 15 percent in assets, an increase of 133 percent in reserves, a 27-percent gain in wholesale sales, and net savings which were 75 percent larger in 1935 than in 1934. The amount returned as dividends on the 1935 patronage was almost 75 percent larger than on that of 1934, and the amount paid in interest on share capital more than doubled.

Two new wholesales have recently been started. During the last quarter of 1935 the Cooperative Wholesale Association of Southern

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California was established to serve as the buying agent for a group of consumers' cooperative stores in and around Los Angeles.

At the beginning of 1936 a new regional wholesale was created to serve consumers' societies in the territory of the Central States Cooperative League—Illinois, Indiana, Ohio, and southern Michigan. This new organization was authorized by the local societies which are members of the league at the annual meeting of that body in April 1935. The new wholesale will have its headquarters in Chicago. It is reported that only a small stock of goods will be carried at first, most of the business being on the drop-shipment basis.

Several wholesale associations moved into new buildings owned by themselves during the year. Among these were the Central Cooperative Wholesale, at Superior, Wis., the Consumers' Cooperative Association, at Kansas City, Mo., the Farmers' Union State Exchange, at Omaha, Nebr., and the Grange Cooperative Wholesale, at Seattle, Wash.

National Cooperatives, Inc., started in 1933 to supplement and coordinate the activities of the regional wholesales, has been acting as the buying agent for the pooled orders of these wholesales. At its 1935 annual meeting the following steps were decided upon: (1) The establishment of a national office with a full-time director, (2) adoption of a method of handling the question of overlapping trade territories and competition between regional wholesales, and (3) appointment of a committee to work for closer coordination with the central educational body of the consumers' cooperative movement, the Cooperative League of the U. S. A. Regarding (2) it was voted that hereafter any wholesale organization applying for membership in the national wholesale must submit a map showing the territory covered and the extent of its operations therein.

The data in the present article relate only to cooperative wholesale associations which handle consumers' goods. Several of them also handle supplies connected with the "business" of the farm, such as fencing, seed, fertilizer, etc. There are a number of farmers' organizations which handle farm supplies only, but these were excluded from this report [1] as not properly belonging to the consumers' cooperative movement.

These wholesale associations are democratic organizations owned and controlled by the member (retail) cooperative societies. Their policies are decided by a board of directors elected at the annual meeting of delegates sent by the member societies. Representation at the annual meeting may be on the basis of the individual membership of the constituent societies or on the basis of their patronage of the wholesale, but never in a genuinely cooperative society is it on the basis of capital investment.

[1] Data for such organizations are collected and published by the U. S. Farm Credit Administration.

Services Offered by Wholesales

THE commodities and services furnished by the various wholesale organizations are shown in table 1. Italics indicate the new lines or services undertaken during 1935.

The educational departments noted in the table do propaganda work and provide speakers and educational material on the cooperative movement for meetings. Several of them hold regular or occasional schools, mainly for the purpose of training managers and employees for cooperative enterprises.

Table 1.—Lines of Goods Handled by Cooperative Wholesale Societies, and Other Services Provided

[Italics indicate new services or goods added in 1935]

State and city	Name of wholesale	Goods handled	Goods manufactured	Other services
National wholesale				
Indiana: Indianapolis.	National Cooperatives, Inc.	Petroleum products, automobile tires, tubes, and batteries.	----------	
Regional wholesales				
Illinois: Chicago	Illinois Farm Supply Co.	Petroleum products, paints, solvents, automobile tires, and tubes.	(1)	
Kansas: Kansas City.	Farmers' Union Jobbing Association.	General merchandise, mill feeds, salt, twine, and *petroleum products.*	----------	Truck washing, filling station; educational department; auditing.[2]
Minnesota: Minneapolis	Midland Cooperative Wholesale, Inc.	Petroleum products, automobile tires and batteries, *coal,* paint, and bulk-station equipment.	Lubricating oil.	
St. Paul	Farmers' Union Central Exchange.	Petroleum products, automobile tires and tubes, flour, and feed.	----do----	
Missouri: North Kansas City.	Consumers' Cooperative Association.	Petroleum products, automobile tires, tubes, and batteries, paint, *groceries, wire, and tractors.*	Lubricating oil, axle grease.	Educational department; auditing.[3]
Nebraska: Omaha.	Farmers' Union State Exchange.	Groceries, clothing, *shoes,* farm supplies, petroleum products, and car-lot orders of produce, coal, and salt.	----------	Do.[4]
Ohio: Columbus	Ohio Farm Bureau Cooperative Association.	Petroleum products, coal, and farm supplies.	Feed	Do.[5]
Texas: Amarillo	Consumers' Cooperatives Associated.	Petroleum products, automobile tires, tubes, and accessories, *windmills, washing machines, and refrigerators.*	----------	
Washington: Seattle.	Grange Cooperative Wholesale.	Groceries, petroleum products, automobile tires and batteries, and feed.	Feed	Auditing.[6]
Wisconsin: Superior.	Central Cooperative Wholesale.	Groceries,[7] clothing, bakery products, light hardware, automobile tires, *floor coverings, and drugs (except patent medicines).*	Bakery goods	Educational department; auditing.[8]

[1] No data.
[2] Used by 150 societies in 1934.
[3] Used by about 250 societies in 1934.
[4] Used by about 60 societies in 1934.
[5] Used by 88 county branches in 1934.
[6] Used by about 80 societies in 1934.
[7] New lines added in 1935, also soaps under own label; association roasts its own coffee.
[8] Used by about 84 societies in 1934.

Generally, the line of development in the cooperative movement is from (1) retailing to (2) wholesaling, and then to (3) production. Cooperative production is ordinarily carried on by the wholesale societies through one department of the wholesale or through a separately organized society subsidiary to the wholesale. Goods so produced are usually those handled by all local societies. Less frequently an individual retail society or a group of societies may carry on production, generally of more perishable articles or those of only local demand.[2]

As is evident from the above table, very little production has thus far been undertaken by wholesale societies in the United States. At the end of 1935 three associations were operating oil-compounding plants, two had feed mills, and one a bakery. Early in 1936 the Consumers' Cooperative Association, at Kansas City, Mo., opened a paint factory. Indications are that several other productive enterprises will be started this year. The Central Cooperative Wholesale, at Superior, Wis., expects to start a fish-packing plant and the Farmers' Union State Exchange, at Omaha, Nebr., is planning several new departments, including an oil-compounding plant, a factory for work clothing, and a twine mill. In the State of Washington a new organization was set up in 1935 under Grange auspices, to make flour.

Especially in the Central States region, an increasing number of commodities are being packed under "Co-op" labels. Arrangements are made with canners, manufacturers, and packers whereby goods of guaranteed, tested quality are packed under this label, the presence of which indicates that the contents are guaranteed as to quality by the wholesale organization. In order to insure the continued maintenance of standard, samples are tested by technicians on the staff of the wholesale. The goods so labeled include coffee, spices, and other condiments, paints, canned foods, and soap.[3]

Membership and Resources

COMBINED assets exceeding $3,000,000, and capital and reserves of more than $1,600,000 were reported by 11 associations shown in table 2.

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[2] For a short account of the Mesaba Range Cooperative Federation, a productive organization owned by a group of retail societies in the North Central region, see Monthly Labor Review, October 1935 (p.990).

[3] It is announced that new "label" goods available early in 1936 include a custom-built tractor, and various home electric appliances (washing machines, vacuum cleaners), and radios.

Table 2.—Membership and Resources of Cooperative Wholesale Societies at End of 1935

Society	Year of organization	Number of affiliated societies	Retail branches of wholesale	Unaffiliated customer organizations	Paid-in share capital	Reserve funds	Total assets
Central Cooperative Wholesale	1917	100	----------	29	$168,296	$22,172	$411,888
Consumers' Cooperative Association	1929	350	12	----------	83,548	43,447	453,316
Consumers' Cooperatives Associated	1930	45	----------	15	[1] 15,720	[2] 2,825	42,172
Eastern Cooperative Wholesale	1928	[3] 11	----------	[3] 21	[3] 3,800	[3] 942	[3] 21,409
Farm Bureau Cooperative Association	1933	78	4	(4)	[5] 341,888	22,861	499,368
Farmers' Union Central Exchange	1927	[3] 211	[6] 25	(7)	(7)	(7)	489,854
Farmers' Union Jobbing Association	1914	[3] 280	[3] 2	[3] 208	60,980	30,382	200,359
Farmers' Union State Exchange	1914	233	23	----------	300,269	65,427	678,368
Grange Cooperative Wholesale	1919	64	[8] 1	(7)	13,540	29,131	61,800
Illinois Farm Supply Co	1927	60	(7)	(7)	105,664	130,942	(7)
Midland Cooperative Wholesale	1926	145	(9)	----------	[10] 95,618	72,029	318,414
Total	--------	1,577	67	273	1,189,323	420,158	3,176,948

[1] Of which $11,895 was preferred and $3,825 common stock.
[2] Surplus.
[3] 1934.
[4] "Very few."
[5] Of which $323,538 was preferred and $18,350 common stock.
[6] 1934; also operates 6 distribution warehouses.
[7] No data.
[8] Also a distribution warehouse.
[9] No retail branches operated, but organization maintains a wholesale branch.
[10] Of which $26,449 was preferred and $69,169 common stock.

The 10 associations reporting membership had affiliated societies numbering 1,577. In addition there were 273 local cooperative societies using the wholesales' facilities but not affiliated with any of the central organizations. An increasing number of wholesale associations are opening retail branches. In 1933 4 associations were operating 50 such branches. By 1935 1 association had reduced its branches from 28 to 4 (through sale to local groups) but the branches of the other 3 had risen in number from 22 to 36 and an additional association had opened 2 branches. One of the wholesales in 1935 had opened at various points in its trading territory six distribution warehouses and two others had one such warehouse each.

Business Operations in 1934 and 1935

WHOLESALE sales in 1935 amounting to $27,088,163 were reported by 12 associations. Retail sales, amounting to $1,345,072, through branch stores were reported in 1935 for three associations.

On the 1935 transactions a net saving of $776,883 was realized, of which $407,057 was returned to members in dividends on patronage and $64,677 was paid in interest on share capital.

Data for the individual associations are shown for 1934 and 1935 in table 3.

Table 3.—Operations of Cooperative Wholesale Societies in 1934 and 19

Society	Amount of business [1]		Net gain		Interest on share capital		Patronage refunds	
	1934	1935	1934	1935	1934	1935	1934	19
Central Cooperative Wholesale	$1,787,556	$2,185,245	$31,696	$37,027	------	------	$30,208	$30,
Consumers' Cooperative Association	1,776,839 [2] 241,871	2,646,861 [2] 347,649	50,679	94,412	[3]	$4,462	23,566	40,
Consumers' Cooperatives Associated	126,993	236,895	10,364	14,646	[4] $650	780	7,765	10,
Cooperative Wholesale of Southern California	----------	[5] 40,000	---------	[6]	------	[6]	-------	[6]
Eastern Cooperative Wholesale	187,583	208,515	777	[6]	------	[6]	866	[6]
Farm Bureau Cooperative Association	4,644,712	4,663,909	44,104	145,178	2,305	27,014	15,742	41,
Farmers' Union Central Exchange	2,615,519	4,028,086	55,468	101,309	[6]	[6]	[6]	[6]
Farmers' Union Jobbing Association	270,897	339,215	17,549	11,628	3,689	3,659	13,859	6,
Farmers' Union State Exchange	1,356,796 [2] 779,926	1,635,125 [2] 969,407	62,545	71,805	18,146	18,013	37,891	49,
Grange Cooperative Wholesale	[7] 167,171 [2] 26,314	[8] 281,205 [2] 28,016	1,854	18,277	------	------	3,561	14,
Illinois Farm Supply Co	[6]	8,400,000	[6]	219,160	[6]	7,244	[6]	180,
Midland Cooperative Wholesale	1,751,007	2,423,107	44,799	63,441	827	3,505	18,500	33,
Total	14,685,073 [2] 1,048,111	27,088,163 [2] 1,345,072	319,835	776,883	25,617	64,677	151,958	407,

[1] Unless otherwise noted, figures denote wholesale business.
[2] Sales through retail branches.
[3] 6 percent on common and 8 percent on preferred stock; amount not reported.
[4] Approximate.
[5] For 8 months ending Mar. 31, 1936.
[6] No data.
[7] Wholesale business; does not include direct invoice oil sales of $809,954.
[8] Wholesale business; does not include direct invoice sales of $1,166,129.

Comparative data for 1934 and 1935 are shown in table 4 for societies from which reports are available for both years.

Table 4.—Development of Identical Cooperative Wholesale Societies, 1934 and 1935

Item	1934	1935	Percent of increase, 1935 over 1934
Number of member societies	576	718	24.
Paid-in share capital	$1,231,354	$1,079,859	[1] 12.
Reserves	113,493	265,413	133.
Total assets	2,713,110	3,155,539	16.
Amount of wholesale sales	14,685,073	18,648,163	27.
Net gain	319,058	557,723	74.
Interest paid on share capital	25,617	52,971	106.
Patronage refunds	151,092	227,057	50.

[1] Decrease.

Development of Cooperative Wholesaling Since 1929

THE effect of the depression upon the wholesale societies and the extent of their recovery are shown in table 5. It is seen that sales had fallen by 1932 to less than three-fourths of the 1929 volume, while net savings fell to slightly over one-tenth. Patronage refunds remained on a higher level than net gains until 1935. The gains in business and net earnings, begun in 1934, continued in 1935.

Table 5.—Index Numbers[1] of Resources and Business Operations of Cooperative Wholesale Societies, 1929 to 1935

Year	Paid-in share capital	Index numbers (1929=100.0) of—				
		Reserves	Amount of business	Net gain	Patronage dividends	Interest on share capital
1929	100.0	100.0	100.0	100.0	100.0	100.0
1930	(2)	(2)	107.2	32.2	116.0	99.7
1931	(2)	(2)	85.4	12.1	51.0	105.1
1932	(2)	(2)	70.6	11.5	37.6	76.0
1933	113.9	191.9	83.2	27.6	39.6	103.4
1934	116.6	78.5	117.1	44.0	42.3	101.5
1935	102.3	183.6	148.7	76.9	63.6	209.9

[1] Computed on "chain index" system, i. e., on reports from identical societies from one year to next.
[2] No data.

Table 6 shows for each year for which the Bureau has data the amount of business done, net gain, patronage rebates, and amount paid in interest on share capital by the individual societies. As the table indicates, several of the associations, notably those handling petroleum products, show an unbroken record of increases in amount of business even during the depression. Not one association failed to increase its sales in 1935 as compared with 1934. Since 1930, notwithstanding the unprecedented business conditions, the nine associations for which data as to patronage rebates are available had saved for their member (retail) societies the sum of $1,052,602.

Table 6.—Development of Individual Cooperative Wholesale Societies

Society	Year	Amount of sales	Net gain	Patronage refunds	Interest on share capital
Central Cooperative Wholesale [1]	1917	$25,574	$268	(2)	(2)
	1918	132,423	2,063	(2)	(2)
	1919	313,664	7,330	(2)	(2)
	1920	409,591	6,798	(2)	(2)
	1921	312,347	3,499	(2)	(2)
	1922	337,567	1,183	(2)	(2)
	1923	504,177	5,181	(2)	(2)
	1924	613,215	5,973	(2)	(2)
	1925	835,532	8,869	$5,506	$1,451
	1926	1,048,293	11,648	7,722	1,929
	1927	1,255,676	18,335	13,752	2,632
	1928	1,517,813	23,894	17,296	3,681
	1929	1,755,627	35,798	28,088	4,710
	1930	1,767,760	29,735	26,809	----------
	1931	1,509,752	12,035	9,158	----------
	1932	1,309,698	9,091	9,091	----------
	1933	1,383,290	13,133	13,133	----------
	1934	1,787,556	31,696	30,208	----------
	1935	2,185,245	37,027	30,213	----------
Consumers' Cooperative Association [3]	1930	489,437	24,978	16,376	2,546
	1931	981,491	45,900	35,341	3,917
	1932	1,328,629	26,103	20,154	4,057
	1933	1,493,843	36,978	18,266	4,265
	1934	[4] 1,776,839	50,679	23,566	(5)
	1935	[6] 2,646,861	94,412	40,680	4,462
Consumers' Cooperatives Associated [7]	1931	51,453	10,561	9,185	(5)
	1932	86,662	12,473	7,572	(5)
	1933	128,384	10,382	6,790	(5)
	1934	126,993	10,364	7,765	[10] 650
	1935	236,895	14,646	10,895	780

See footnotes at end of table.

Table 6.—Development of Individual Cooperative Wholesale Societies—Cont

Society	Year	Amount of sales	Net gain	Patronage refunds	Interes on shar capita
Eastern Cooperative Wholesale	1934	$187,583	$777	$866	
	1935	208,515	[2]	[2]	
Farm Bureau Cooperative Association [11]	1926	4,639,928	135,126	130,827	[2] $1,30
	1927	4,573,086	112,900	98,935	2,10
	1928	4,470,273	134,244	125,921	2,38
	1929	5,744,189	207,469	175,344	2,70
	1930	6,029,044	[12] 42,342	190,568	[13]
	1931	3,946,889	[12] 124,475	36,436	
	1932	2,401,867	[12] 52,875		
	1933	3,265,702	[12] 1,747		
	1934	4,644,712	44,104	15,742	2,30
	1935	4,663,909	145,178	41,395	27,01
Farmers' Union Central Exchange	1933	1,549,223	22,066	[2]	[2]
	1934	2,615,519	55,468	[2]	[2]
	1935	4,028,086	101,309		
Farmers' Union Jobbing Association	1930	[3]	76,552	48,900	[14]
	1931	[3]	45,450	23,600	[14]
	1932	[3]	14,194	27,081	[14]
	1933	[3]	26,260	16,000	[14]
	1934	270,897	17,549	13,859	3,69
	1935	339,215	11,628	6,807	3,63
Farmers' Union State Exchange [15]	1920	2,387,972	[3]	[2]	[2]
	1921	1,468,133	[12] 83,000		[2]
	1922	1,148,133	[12] 24,832		[2]
	1923	1,335,662	9,655		[2]
	1924	1,347,605	20,647		[2]
	1925	1,521,312	36,633		13,54
	1926	1,512,024	34,222		26,57
	1927	1,618,288	49,096		26,31
	1928	1,774,143	37,930	12,136	19,56
	1929	2,001,725	50,583	22,068	19,45
	1930	2,118,212	70,850	44,142	19,38
	1931	1,571,028	64,732	39,236	19,19
	1932	1,192,838	34,912	21,786	12,65
	1933	1,244,993	61,945	35,963	18,48
	1934	1,356,796	62,545	37,891	18,14
	1935	1,635,125	71,805	49,258	18,01
Grange Cooperative Wholesale	1920	53,570	[2]	[2]	[2]
	1921	44,254	[2]	[2]	[2]
	1922	156,122	[2]	[2]	[2]
	1923	135,161	[2]	[2]	[2]
	1924	246,096	[2]	[2]	[2]
	1925	102,677	[2]	[2]	[2]
	1926	[2]	[2]	[2]	[2]
	1927	105,880	1,786		
	1928	109,862	1,321		
	1929	116,721	1,074		
	1930	119,855	1,013		
	1931	243,487	1,274		
	1932	173,854	1,984		
	1933	102,378	2,091		
	1934	[16] 167,171	1,854	3,561	
	1935	[17] 281,205	18,277	14,368	
Midland Cooperative Wholesale [18]	1927	269,863	3,473		
	1928	417,956	3,926		240
	1929	448,013	7,798		206
	1930	600,239	14,804	[2]	[2]
	1931	615,388	21,163	[2]	[2]
	1932	883,736	26,906	[2]	[2]
	1933	1,073,567	25,466	18,000	[2]
	1934	1,751,007	44,799	18,500	827
	1935	2,423,107	63,441	33,441	3,565

[1] Name changed from Cooperative Central Exchange in 1931.
[2] No data.
[3] Name changed from Union Oil Co. (Cooperative) in 1935.
[4] Does not include sales of retail branches amounting to $241,871.
[5] 6 percent on common and 8 percent on preferred stock; amount not reported.
[6] Does not include sales of retail branches amounting to $347,649.
[7] Name changed from Consumers Associated in 1934.
[8] 10 percent; amount not reported.
[9] 8 percent; amount not reported.
[10] Approximate.
[11] Data for years prior to 1934 cover operations of Ohio Farm Bureau Service Co., the wholesale department of which was purchased by the Farm Bureau-Cooperative Association in that year.
[12] Loss.
[13] 4 percent; amount not reported.
[14] 6 percent; amount not reported.
[15] Data for sales do not include sales of retail branches. These for the years for which figures are available, were as follows: 1928, $589,209; 1929, $355,000; 1930, $398,788; 1931, $358,733; 1934, $779,926; 1935, $969,407.
[16] Does not include direct-invoice oil sales amounting to $809,954 nor sales of retail branch amounting to $26,314.
[17] Does not include direct-invoice sales amounting to $1,166,129 nor sales of retail branch amounting to $28,016.
[18] Name originally Minnesota Cooperative Oil Co., changed to Cooperative Oil Co. in 1928, and to Midland Cooperative Oil Association in 1930.

Employees to the number of 344 were reported in 1935 by eight wholesales, which had a pay roll amounting to $398,788 in that year. Average annual earnings per worker were $1,183 and ranged in the individual associations from $1,037 to $1,437. Details are shown in table 7.

Table 7.—Employment and Pay Rolls of Cooperative Wholesale Societies, 1934 and 1935

Society	Number of employees		Amount paid in wages			
			Total		Average per employee	
	1934	1935	1934	1935	1934	1935
Central Cooperative Wholesale	55	58	$76,534	$83,339	$1,392	$1,437
Consumers' Cooperative Association	96	116	102,701	120,260	1,070	1,037
Consumers' Cooperatives Associated	7	7	13,388	(1)	1,913	(1)
Eastern Cooperative Wholesale	3	(1)	6,000	(1)	2,000	(1)
Farm Bureau Cooperative Association	[2] 220	40	[2] 352,140	49,951	1,601	1,249
Farmers' Union Jobbing Association	7	11	11,412	13,600	1,630	1,236
Grange Cooperative Wholesale	10	8	7,100	10,578	710	1,322
Midland Cooperative Wholesale	35	66	34,968,	75,545	999	1,145
Farmers' Union State Exchange	(1)	38	(1)	45,515	(1)	1,198
Total	433	344	604,243	398,788	1,395	1,183

[1] No data.
[2] Includes employees of 29 retail branches, 25 of which were sold to local associations in 1935.

International Relations

THE Cooperative League of the U. S. A. is the central educational body of the consumers' societies. Through it the consumers' cooperative movement of the United States is affiliated with the International Cooperative Alliance, an organization of which the cooperative movements of 39 countries of the world are members. The cooperative wholesale societies in this country which are members of the League are therefore indirectly affiliated with the Alliance.

The national wholesale society of the United States, National Cooperatives (Inc.), is directly affiliated with the International Cooperative Wholesale Society.

The first steps in participation in international trade by the wholesale cooperatives in the United States were taken in 1935, with the filling of orders for lubricating oil from the wholesale societies of Estonia, France, and Scotland, by the Consumers' Cooperative Association of Kansas City, Mo.

Wholesales of Self-Help Cooperatives

ALONGSIDE the consumers' cooperative movement, but separate from it, has been developing during the past few years, the cooperative self-help movement. It was started by groups of unemployed workers

who wished to keep themselves self-supporting.[4] The purpose of th self-help associations was twofold: To furnish self-employment, an to supply the members and their families with the necessaries of lif Many of the groups were organized on the producer rather than con sumer basis. Under the guidance of some of their own leaders an with the encouragement of State and Federal officials, the emphas has been gradually shifting toward the consumer viewpoint. Toda many of the organizations are either already organized as consumer cooperatives with productive departments or are on their way t becoming such. The organized consumers' cooperative movement i aware of this new development in cooperative enterprise and in som parts of the country business relations have been established. In on or two cases consumers' wholesales have absorbed surplus product of self-help associations.

Several wholesale associations (not included in the foregoin tabulations) have also been set up in the self-help movement. Suc central organizations now exist in California, Idaho, Utah, and Washington. These are on a somewhat different basis from those o the consumers' cooperative movement. In Idaho, Utah, and Wash ington there is a central warehouse under the auspices of a Stat agency charged with the supervision of self-help cooperatives under Federal grant.[5] The warehouse is intended to serve as a medium for the exchange of surpluses between the local groups. Unlike the situation as regards the wholesale societies of the consumers' coopera tive movement, these warehouses are not owned and supported financially by the local groups nor under their control. Eventually, as the self-help movement grows, the control of the warehouse may be taken over by the local societies and wholesale organizations may be developed on the accepted Rochdale basis. In California the central organizations, of which there are now five, were formed by federation of the local groups, for exchange of surpluses, and are supported by them.

[4] For earlier articles describing the self-help cooperatives see Monthly Labor Review, issues of March (p. 449), April (p. 717), May (p. 979), June (p. 1229), and October 1933 (p. 806); February (p. 314) and July 1934 (p. 25); March (p. 604) and December 1935 (p. 1504); and March 1936 (p. 609).

[5] See Monthly Labor Review, March 1936 (p. 609), for other State action for encouragement of self-help cooperatives.

WORKMEN'S COMPENSATION

Compensation for Injury to Vocational-School Student

THE District Court of Appeal of California recently held that a boy injured while taking apprentice training in a shop for 4 hours each day was eligible to compensation as an employee (*Union Lumber Co.* v. *Industrial Accident Commission*, 55 Pac. (2d) 911).

Alton Thornquist, a boy 16 years old, was a pupil at the Fort Bragg High School and as such took advantage of the vocational training course offered under the terms of the Federal Smith-Hughes Act. To get the practical training necessary he worked 4 hours each day as an apprentice in the butcher shop of the Union Lumber Co. The school authorities had no supervision over the way in which the apprentice performed his work in the shop. The owners of the shop paid $25 each semester into the vocational fund of the school, and the school authorities voluntarily gave this amount to Thornquist.

As the result of an injury sustained while working under the above circumstances, the industrial accident commission awarded workmen's compensation to Thornquist, and the company requested the district court of appeal to review the award.

In affirming the award in favor of the injured apprentice, the court said the main question for decision was whether an employer-employee relation existed between Thornquist and the lumber company, as the company could not be held liable if his services were merely voluntary.

The Workmen's Compensation Act (Stat. 1917, p. 835, as amended) defines an employer as one "who has any person in service under any appointment or contract of hire, or apprenticeship, express or implied, oral or written." The court held, therefore, that the lumber company was the boy's employer, even though the contract was an oral one.

The evidence showed that $25 was paid each semester by the lumber company to the vocational fund for the apprenticed student. Several cases were cited holding that "it is not necessary that the compensation shall be paid directly to the employee in order to constitute a relationship of master and servant or employer and employee." However, the court held there was still adequate remuneration for the employment, even if the money paid into the vocational fund were not in turn given to the pupil. In this case the instruction which

the boy received from the owner constituted the compensation f his work as helper in the shop. Holding that "it is not necessa that services rendered in an employment shall be compensated money", the court cited a case in which an apprentice motorman an electric car, serving the railway company without pay wh learning the route, was held to be an employee under the workmen compensation act.

The court concluded therefore that the lumber company was liab for the injuries sustained by the apprentice employee.

State Workmen's Compensation Law Inapplicable t Injury on Federal Military Reservation

IN a recent decision the Supreme Court of Oklahoma held that a injury sustained on a Federal military reservation was not covere by State workmen's compensation and therefore could not be com pensated under its terms (*Utley et al.* v. *State Industrial Commissio et al.*, 55 Pac. (2d) 762).

In May 1933, Alfred Hale was injured within the Fort Sill Militar Reservation in Oklahoma. At the time of injury he was employe in hazardous work, and "the contract of employment and all th incidents in connection therewith were made, performed, and oc curred on the reservation." The industrial commission awarde Hale workmen's compensation, but the employer and insurance carrier requested a review of the award by the Supreme Court o Oklahoma, claiming that the State Workmen's Compensation Act did not apply and that, because of this, the industrial commission had no jurisdiction.

In upholding this contention and vacating the award of the industrial commission the court first reviewed the following historical facts: The land which constitutes the Fort Sill Military Reservation was ceded to the United States by France many years before Oklahoma became a State, and hence it was not purchased by the Federal Government from the State under the terms of the United States Constitution (art. 1, sec. 8, cl. 17). However, in section 12253 of Oklahoma Statutes, 1931, is found part of a law enacted in 1913, ceding to the United States jurisdiction of all territory "now owned by the United States and comprised within the limits of the military reservations of Fort Sill." Two years later, in 1915, Oklahoma enacted a workmen's compensation law, but it is obvious that this law could not apply to territory the exclusive jurisdiction over which had been ceded to the United States. Then in 1928 the Federal Congress passed a law (Code 1934, title 16, sec. 457), part of which is as follows:

> In the case of the death of any person by the neglect or wrongful act of another within a national park or other place subject to the exclusive jurisdiction of the United States, within the exterior boundaries of any State, such right of action shall exist as though the place were under the jurisdiction of the State; * * * and in any action brought to recover on account of injuries sustained in any such place the rights of the parties shall be governed by the laws of the State within the exterior boundaries of which it may be.

Explaining that this act of Congress refers only to actions at law for neglect or wrongful act of another, while the Workmen's Compensation Act "abolished such actions at law by injured employees * * * and substituted the rights and procedure now administered by the State industrial commission", the court quoted from the Supreme Court decision concerning an injury received in the Puget Sound Navy Yard, in the State of Washington (*Murray* v. *Joe Gerrick & Co.*, 291 U. S. 315), as follows:

> After the effective date of the State's cession the jurisdiction of the Federal Government was exclusive (*Fort Leavenworth R. Co.* v. *Lowe*, 114 U. S. 525; *United States* v. *Unzeuta*, 281 U. S. 138), and laws subsequently enacted by the State were ineffective in the navy yard (*Arlington Hotel Co.* v. *Fant*, 278 U. S. 439). Congress may, however, adopt such later State legislation as respects territory under its jurisdiction, and the petitioner claims it did so adopt the Compensation Act by the act of February 1, 1928. This argument overlooks the fact that the Federal statute referred only to actions at law, whereas the State act abolished all actions at law for negligence and substituted a system by which employers contribute to a fund to which injured workmen must look for compensation. The right of action given upon default of the employer in respect of his obligation to contribute to the fund is conferred as a part of the scheme of State insurance and not otherwise. The act of Congress vested in Murray no right to sue the respondents had he survived his injury. Nor did it authorize the State of Washington to collect assessments for its State fund from an employer conducting work in the navy yard.

The award of workmen's compensation for an injury received on the Fort Sill Military Reservation was therefore set aside.

MINIMUM WAGE

Minimum-Wage Law of State of Washington Declared Constitutional [1]

THE minimum-wage law of Washington has recently been upheld by the supreme court of that State (*Parrish* v. *West Coast Hotel Co.*., 55 Pac. (2d) 1083). This decision is of especial interest in view of the fact that the United States Supreme Court has under consideration an appeal from the adverse decision of the court of appeals on the New York minimum-wage law.

The Washington statute, passed in 1913, differs from the more recent New York act. It makes unlawful the employment of woman workers at wages which are not adequate for their maintenance. The New York law, however, permits a board, after finding that in a certain industry the wages are "less than the fair and reasonable value of the services rendered and less than sufficient to meet the minimum cost of living necessary for health", to fix a minimum fair wage which shall be "fairly and reasonably commensurate with the value of the service or class of service rendered." The Washington law creates an industrial welfare commission which is charged with establishing such wage standards for women and minors as are reasonable "and not detrimental to health and morals, and which shall be sufficient for the decent maintenance of women."

The West Coast Hotel Co. employed a woman worker from August 1933 to May 1935, at an agreed wage which was less than the $14.50 minimum wage established by the industrial welfare commission. The superior court of the State held that the employer was responsible only for the agreed wage, entitling the worker to recover only $17, as against the $216.19 to which she would be entitled if the company were required to pay the minimum wage. The court further held that the law in its application to adult women was an unconstitutional interference with the freedom of contract guaranteed by the due-process clause of the fourteenth amendment to the Federal Constitution. From this judgment appeal was taken to the supreme court of the State.

The higher court had passed upon the same statute in a case (*Larsen* v. *Rice*, 100 Wash. 642, 171 Pac. 1037) which was decided in 1918. This was 5 years before the United States Supreme Court

[1] This article was prepared before the U. S. Supreme Court had rendered an opinion in the New York minimum-wage law case. This case will be reviewed in the July issue of the Monthly Labor Review.

rendered its decision in *Adkins* v. *Children's Hospital*, declaring the District of Columbia minimum-wage law unconstitutional. In the earlier Washington case the court said:

> The State, having declared that a minimum wage of a certain amount is necessary to a decent maintenance of an employee engaged in the employment in which the respondent was engaged, has an interest in seeing that the fixed compensation is actually paid. The statute making the declaration not only makes contracts of employment for less than the minimum wage void, but has sought to secure its enforcement by making it a penal offense on the part of the employer to pay less than the minimum wage, and by giving to the employee a right of action to recover the difference between the wage actually paid and such minimum wage. The statute was not therefore intended solely for the benefit of the individual wage earner. It was believed that the welfare of the public requires that wage earners receive a wage sufficient for their decent maintenance. The statute being thus protective of the public as well as of the wage earner, it must follow that any contract of settlement of a controversy arising out of a failure to pay the fixed minimum wage in which the State did not participate is voidable, if not void. Especially must this be so, as here, where the contract of settlement is executory, has been repudiated by one of the parties, the parties can be placed in statu quo, and the wage earner, by carrying out the contract will not receive the wage to which she is justly entitled.

The court in the instant case then quoted at length from the dissenting opinions read by Mr. Chief Justice Taft and Mr. Justice Holmes in the *Adkins case*.

The Washington supreme court pointed out that many laws infringing upon the liberty to contract have been declared constitutional and that it is the State's duty to interfere with that liberty when there is an inequality in bargaining power between the parties making the contract. The minimum-wage law does to some extent deprive employer and employee of their freedom but its purpose is to correct a public evil in the public interest. This is a reasonable and well-recognized exercise of the police power. It was also stated that regardless of whether the people to which these laws apply are of full age, the State is not for that reason prohibited from interfering when public health and interest so demand. The court further said that the United States Supreme Court had not yet held unconstitutional a State minimum-wage statute similar to the one involved in this case and that *Adkins* v. *Children's Hospital* was not controlling. The court pointed out, also, that the State legislature found the statute to be of public interest and that in the State of Washington evils did exist for which it considered the minimum-wage law to be an appropriate remedy. Under such circumstances the law cannot be declared unconstitutional unless it is clearly indicated that the findings are arbitrary and unreasonable.

The court reversed the judgment of the lower court and remanded the case with instructions to enter judgment in favor of the appellant in an amount equal to the difference between the amount paid and the amount due under the minimum-wage law.

LABOR ORGANIZATIONS

Amalgamation of Principal Trade-Union Organizations in France [1]

THE division in the ranks of organized labor in France which resulted from the secession of a large group of members in 1921 from the C. G. T. (Confédération Générale du Travail) was ended by the action of a conference of the two factions held in Toulouse in March. The minority group which was called the C. G. T. Unitaire withdrew from the main organization because of differences of opinion as to political activity and adherence to international labor organizations; the C. G. T. had adhered to the International Federation of Trade Unions,[2] while the C. G. T. Unitaire favored and ultimately adhered to the Red International of Labor Unions.[3]

In succeeding years the C. G. T. at the biennial congresses devoted considerable time to the question of trade-union unity and prior to the congress of 1931 a committee called the "Committee of 22", made up of representatives of both organizations, was organized to try to formulate a basis for compromise. A resolution submitted by this committee pointed out the necessity for national and international reconstruction of the trade-union movement for the purpose of securing unity of action and proposed that the C. G. T. should unite with other organizations in a national reconstruction congress which should have for its purpose the establishment of a single organization uniting the General Confederation of Labor and the dissident and other trade-union organizations such as the Christian trade-unions and the so-called "yellow unions" (*syndicats jaunes*). This resolution was defeated by a large majority and a resolution was adopted which expressed the wish of the congress for unity of action since it was evident that the need for united forces was more urgent than ever in view of the general economic situation. The resolution asserted, however, that this unity could be realized only through the

[1] Data are from Confédération Générale du Travail, La Voix du Peuple (Paris), Janvier 1936 (p. 3); report from Ernest de W. Mayer, American Vice Consul, Paris, Mar. 9, 1936; and International Labor Office, Industrial and Labor Information (Geneva), Mar. 23, 1936 (p. 328).

[2] That body was reorganized in Amsterdam in 1919. Its headquarters were later moved to Berlin and finally to Paris where they now are.

[3] Headquarters at Moscow.

medium of the principal organization—the C. G. T. It was not until 1935 that sentiment for the amalgamation of the two principal union organizations crystallized sufficiently to permit this aim to be accomplished. A confederal congress held in September 1935 voted for the reunion of the two organizations and appointed a committee (Comité Confédéral National d'Unité) which met in January 1936 to nominate provisional officers and to make general arrangements for the national congress which was held in Toulouse in March.

According to trade-union sources, the membership of the C. G. T. in 1936 was approximately 700,000 and that of the C. G. T. U. 250,000. The discussions in the conference dealt principally with questions of the structure of the confederation; the principle of incompatibility, that is, the prohibition of the holding of political and trade-union offices at the same time; international policy; and the program of the reorganized confederation. The congress was attended by 1,709 delegates with 7,926 votes, representing 3,689 organizations with a total membership of nearly one million persons. The voting on the questions at issue was in all cases favorable to the moderate wing.

The congress decided by a vote of 5,700 to 2,609 to retain the present federal structure of the organization, which provides for the indirect appointment of officers as against the direct election of these officers by the congress, with unlimited authority of the directive committee between congresses. By a vote of 5,508 to 2,411 it was decided that officers of the trade-union organization should not be allowed to accept political office. On the question of international labor affiliation it was decided by a vote of 5,463 to 2,513 to remain in the International Federation of Trade Unions rather than to affiliate with the Red International of Labor Unions.

The fourth question, that of the program to be followed by the reorganized confederation, gave rise to prolonged discussions. The resolution which was finally adopted unanimously by the congress endorsed the program drawn up by the solidarity committee, which included the establishment of a national unemployment fund, the 40-hour week, minimum wages, large public works, collective agreements, and supervision by the workers. The congress declared itself in favor of curbing the power of capitalism and to this end favored radical changes in the economic structure, including the nationalization of credit and industry.

Following the congress the new executive committee was appointed consisting of Mr. Jouhaux as general secretary, Mr. Félix Dupont, treasurer, and six assistant secretaries, four of whom were members of the old C. G. T. and two of the C. G. T. U.

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INDUSTRIAL DISPUTES

Trend of Strikes [1]

THERE were about the same number of strikes in progress during April 1936 as there were during April a year ago. However, only about half as many persons were involved in the April 1936 strikes as in the April 1935 strikes. Approximately 42,000 persons went out on strike in April, 40 percent fewer than in the preceding month.

Figures for March and April 1936 are preliminary, based on the partial information available as this report goes to press. An analysis of strikes in April, based on detailed and verified information, will appear in the August Labor Review.

Trend of Strikes, January 1935 to April 1936 [1]

Year and month	Number of strikes—					Workers involved in strikes—		Man-days idle during month
	Beginning—		In progress during month	Ended in month	In effect at end of month	Beginning in month	In progress during month	
	Prior to month	In month						
1935								
January	73	140	213	130	83	81,194	92,630	720,77
February	83	149	232	130	102	64,238	96,533	836,49
March	102	175	277	163	114	53,089	98,457	966,98
April	114	180	294	161	133	67,857	124,174	1,178,83
May	133	174	307	177	130	102,491	151,163	1,697,94
June	130	189	319	186	133	48,917	129,784	1,311,27
July	133	184	317	179	138	70,046	141,829	1,297,73
August	138	239	377	228	149	74,313	150,835	1,191,66
September	149	162	311	169	142	453,820	514,427	3,027,04
October	142	190	332	200	132	48,223	133,742	1,562,90
November	132	142	274	154	120	38,279	100,732	1,063,83
December	120	90	210	126	84	14,746	61,782	660,91
1936								
January	84	139	223	132	91	29,969	56,716	629,20
February	91	132	223	115	108	62,259	88,229	727,38
March [2]	108	172	280	158	122	70,000	116,000	1,207,00
April [2]	122	169	291	160	131	42,000	74,000	886,00

[1] Strikes involving fewer than 6 workers or lasting less than 1 day are not included in this table, nor in the tables in the following article. Notices or leads regarding strikes are obtained by the Bureau from 670 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Schedules are sent to representatives of all parties in the disputes in order to get detailed and first-hand information. Since schedules for all strikes during the last 2 months have not yet been returned, these figures are given as preliminary. Data for previous months are essentially accurate, although they cannot be considered absolutely final. Occasionally later information is received which might slightly alter these figures. These corrections will be included in subsequent reports.

[2] Preliminary.

[1] The term "strike" is here used in the generic sense to include all stoppages of work due to labor disputes whether initiated by the employers (lockouts) or by the workers.

Analysis of Strikes in February 1936

THERE were 223 strikes in progress during the month of February; 132 of these began during the month and the other 91 began prior to but continued into February. These 223 strikes directly involved 88,000 workers and were the cause of 727,000 man-days of idleness during the month of February.

Of the 132 strikes beginning in February the largest number (45) was in the textile industries. The industrial groups with the next largest number were transportation and communication with 9 and building and construction with 9. With the exception of textiles, there were more workers involved in strikes and more man-days of idleness in the rubber industries than in any other industrial group. This was due principally to the Goodyear Tire and Rubber Co. strike [1] at Akron, Ohio, which began February 17 and continued into March.

The general strike shown at the end of table 1 was the strike in Pekin, Ill., February 4 to 6, in sympathy with striking employees of the American Distilling Co. in the same city.

Table 1.—Strikes in February 1936, by Industry

Industry	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
All industries	**132**	**62,259**	**223**	**88,229**	**727,389**
Iron and steel and their products, not including machinery	**1**	**200**	**4**	**976**	**12,836**
Steam and hot-water heating apparatus and steam fittings			1	260	4,160
Stoves			1	500	4,500
Wirework	1	200	1	200	4,000
Other			1	16	176
Machinery, not including transportation equipment	**4**	**126**	**5**	**292**	**5,162**
Agricultural implements			1	166	3,320
Foundry and machine-shop products	4	126	4	126	1,842
Transportation equipment	**1**	**58**	**5**	**2,448**	**58,592**
Automobiles, bodies, and parts	1	58	3	598	14,192
Shipbuilding			2	1,850	44,400
Nonferrous metals and their products	**2**	**119**	**4**	**291**	**1,719**
Silverware and plated ware	1	70	1	70	350
Smelting and refining—copper, lead, and zinc			1	105	315
Stamped and enameled ware	1	49	1	49	49
Other			1	67	1,005
Lumber and allied products	**4**	**335**	**10**	**1,353**	**15,656**
Furniture	4	335	6	486	6,961
Millwork and planing			1	90	2,160
Sawmills and logging camps			1	265	3,975
Other			2	512	2,560
Stone, clay, and glass products	**3**	**2,213**	**5**	**3,269**	**26,182**
Glass	3	2,213	3	2,213	7,312
Pottery			1	906	18,120
Other			1	150	750
Textiles and their products	**45**	**33,738**	**75**	**40,970**	**274,769**
Fabrics:					
Carpets and rugs	1	400	2	2,006	16,872
Cotton goods	5	3,502	9	4,644	51,303
Dyeing and finishing textiles	1	25	1	25	250
Silk and rayon goods	7	1,139	13	2,510	39,412
Woolen and worsted goods	2	58	3	239	3,976
Other	1	222	2	322	3,998

[1] See Monthly Labor Review for May 1936 (p. 1288).

Table 1.—Strikes in February 1936, by Industry—Continued

Industry	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
Textiles and their products—Continued.					
Wearing apparel:					
Clothing, men's	1	138	3	413	6,[illegible]
Clothing, women's	19	7,536	27	8,090	36,[illegible]
Hats, caps, and millinery	3	20,218	4	20,365	87,[illegible]
Hosiery	1	95	2	1,195	23,[illegible]
Knit goods	2	68	4	695	2,[illegible]
Other	2	337	5	466	3,[illegible]
Leather and its manufactures	2	164	3	764	10,[illegible]
Boots and shoes	1	19	1	19	
Leather			1	600	9,[illegible]
Other leather goods	1	145	1	145	1,[illegible]
Food and kindred products	5	204	10	1,569	6,[illegible]
Baking	2	34	4	72	[illegible]
Beverages			1	675	2,[illegible]
Canning and preserving			1	200	2,[illegible]
Confectionery	1	10	1	10	
Slaughtering and meat packing	2	160	3	612	1,[illegible]
Paper and printing	4	122	7	178	2,[illegible]
Paper and pulp	1	60	1	60	1,[illegible]
Printing and publishing:					
Book and job	2	41	2	41	[illegible]
Newspapers and periodicals	1	21	2	33	[illegible]
Other			2	44	[illegible]
Chemicals and allied products	1	750	1	750	6,[illegible]
Chemicals	1	750	1	750	6,[illegible]
Rubber products	5	15,764	5	15,764	142,[illegible]
Rubber tires and inner tubes	3	15,514	3	15,514	141,[illegible]
Other rubber goods	2	250	2	250	1,[illegible]
Miscellaneous manufacturing	4	1,555	5	1,657	29,[illegible]
Electric light, power, and manufactured gas	2	250	2	250	2,[illegible]
Furriers and fur factories	1	1,250	1	1,250	25,[illegible]
Other	1	55	2	157	2,[illegible]
Extraction of minerals	7	2,745	12	9,195	69,[illegible]
Coal mining, anthracite	3	1,330	4	1,719	6,[illegible]
Coal mining, bituminous	2	815	5	6,176	48,[illegible]
Metalliferous mining	2	600	2	600	5,[illegible]
Quarrying and nonmetallic mining			1	700	8,[illegible]
Transportation and communication	9	1,032	15	2,856	22,[illegible]
Water transportation	4	342	8	2,005	15,[illegible]
Motor transportation	5	690	7	851	6,[illegible]
Trade	5	309	10	572	7,[illegible]
Wholesale	2	110	2	110	[illegible]
Retail	3	199	8	462	7,[illegible]
Domestic and personal service	6	115	12	1,536	10,[illegible]
Hotels, restaurants, and boarding houses	3	40	5	105	[illegible]
Laundries	1	8	5	1,364	9,[illegible]
Dyeing, cleaning, and pressing	2	67	2	67	[illegible]
Professional service	2	18	2	18	[illegible]
Recreation and amusement	1	11	1	11	[illegible]
Semiprofessional, attendants, and helpers	1	7	1	7	[illegible]
Building and construction	9	681	16	1,488	16,[illegible]
Buildings, exclusive of P. W. A.	6	563	10	985	8,[illegible]
All other construction (bridges, docks, etc., and P. W. A. buildings)	3	118	6	503	7,[illegible]
Agriculture, etc.	2	67	2	67	[illegible]
Agriculture	2	67	2	67	[illegible]
Relief work and W. P. A.	4	318	6	491	1,[illegible]
Other nonmanufacturing industries	6	126	8	225	1,[illegible]
General strike	1	1,500	1	1,500	4,[illegible]

More than one-fourth (35) of the strikes beginning in February were in New York and approximately one-fifth (27) of the total number were in Pennsylvania. There were more man-days of idleness, however, in Ohio than in any other State during the month. This was accounted for principally by the Goodyear strike in Akron.

Three of the strikes in progress during February, as shown at the end of table 2, extended into two or more States. These were (1) the

strike of seamen on steam schooners along the Pacific Coast which began in December 1935 and was terminated in February; (2) a strike of fur workers in New York City and New Jersey; and (3) a strike against a clothing firm with plants in Rhode Island and Pennsylvania. The two last-named strikes began in February and extended into March.

Table 2.—Strikes in February 1936, by States

State	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
All States	132	62,259	223	88,229	727,389
Alabama	3	2,095	5	2,130	23,679
Arizona	1	40	1	40	80
California	5	304	12	2,698	55,651
Connecticut	4	458	5	605	10,423
District of Columbia	2	38	3	63	670
Illinois	4	1,711	9	3,708	30,316
Indiana	2	92	3	120	1,056
Kansas	1	16	1	16	16
Kentucky			1	5,000	34,344
Louisiana	1	114	1	114	228
Maine	1	19	1	19	19
Maryland			1	102	2,040
Massachusetts	6	5,348	11	6,991	35,060
Michigan	1	21	3	194	406
Minnesota			4	1,632	24,960
Mississippi			1	105	105
Missouri	2	40	2	40	322
Montana			1	80	1,920
Nebraska	1	27	1	27	54
Nevada	1	100	1	100	100
New Hampshire	1	400	1	400	1,200
New Jersey	3	710	13	2,737	28,510
New Mexico	2	765	2	765	11,860
New York	35	23,861	53	25,768	124,617
North Carolina	1	26	1	26	338
Ohio	11	18,866	15	20,177	186,412
Oklahoma			1	452	904
Oregon	1	98	2	186	3,957
Pennsylvania	27	3,970	43	7,413	64,903
Rhode Island	2	133	3	146	2,481
South Carolina	2	837	3	1,262	23,506
Tennessee	1	10	2	121	2,008
Texas	2	196	2	196	1,148
Vermont			1	700	8,000
Virginia			1	261	711
Washington	3	148	5	503	8,067
Wisconsin	4	166	5	182	527
Interstate	2	1,650	3	3,150	36,800

Approximately one-fifth of the strikes beginning in February involved fewer than 20 workers each and 60 percent of the total number involved fewer than 100 workers each. The average number of workers in the 132 strikes was 472.

In table 3 the strikes in each industrial group are classified according to the number of workers involved. The two strikes in which more than 10,000 workers were involved were a short strike of millinery workers in New York City and the Goodyear Tire and Rubber Co. strike in Akron, Ohio.

Table 3.—Strikes Beginning in February 1936, Classified by Number of Workers Involved

Industrial group	Total	Number of strikes in which the number of workers involved was—						
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000	10,000 and over
All industries	132	27	54	31	11	7		2
Manufacturing								
Iron and steel and their products, not including machinery	1			1				
Machinery	4		4					
Transportation equipment	1		1					
Nonferrous metals and their products	2		2					
Lumber and allied products	4	2		2				
Stone, clay, and glass products	3		1		1	1		
Textiles and their products	45	5	17	14	5	3		1
Leather and its manufactures	2	1		1				
Food and kindred products	5	2	2	1				
Paper and printing	4	1	3					
Chemicals and allied products	1				1			
Rubber products	5	1		2		1		1
Miscellaneous manufactures	4		2	1		1		
Nonmanufacturing								
Extraction of minerals	7		1	3	3			
Transportation and communication	9	1	5	2	1			
Trade	5	2	2	1				
Domestic and personnel service	6	3	3					
Professional service	2	2						
Building and construction	9	2	5	2				
Agriculture, etc	2		2					
Relief work and W. P. A	4	1	2	1				
Other nonmanufacturing industries	6	4	2					
General strike	1					1		

Slightly more than half of the strikes beginning in February were over union organization issues principally, while about 32 percent of the strikes were over wage and hour issues. The strikes over organization issues included 57.6 percent of the workers, as compared with 36.3 percent included in the wage and hour disputes.

In the 13 strikes listed under "other" in table 4 the major issues involved were such matters as rotation of work, increased work load, distribution of work, and delayed pay.

Table 4.—Major Issues Involved in Strikes Beginning in February 1936

Major issues	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	132	100.0	62,259	100.0
Wages and hours	**42**	**31.8**	**22,573**	**36.3**
Wage increase	18	13.6	3,810	6.1
Wage decrease	10	7.6	2,540	4.1
Wage increase, hour decrease	7	5.3	1,434	2.3
Wage decrease, hour increase	4	3.0	670	1.1
Hour increase	1	.8	14,000	22.5
Hour decrease	2	1.5	119	.2
Organization	**69**	**52.3**	**35,898**	**57.6**
Recognition	14	10.6	2,425	3.9
Recognition and wages	18	13.6	20,623	33.1
Recognition, wages and hours	15	11.5	6,381	10.2
Closed shop	6	4.5	2,666	4.3
Violation of agreement	3	2.3	1,375	2.2
Discrimination	13	9.8	2,428	3.9
Miscellaneous	**21**	**15.9**	**3,788**	**6.1**
Sympathy	1	.8	1,500	2.4
Jurisdiction	4	3.0	112	.2
Other	13	9.8	2,112	3.4
Not reported	3	2.3	64	.1

There were 115 strikes which ended in February with an average duration of approximately 27 calendar days. In table 5 the strikes in each industrial group are classified according to duration.

More than one-third of the 115 strikes lasted less than a week but at the other extreme there were 9 which had been in progress 3 months or more. All of these were small strikes against individual firms, none of them involving as many as 500 workers.

Table 5.—Duration of Strikes Ending in February 1936

Industrial group	Total	Number of strikes with duration of—					
		Less than 1 week	1 week and less than ½ month	½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries	115	43	20	20	19	4	9
Manufacturing							
Iron and steel and their products, not including machinery	3				3		
Machinery, not including transportation equipment	1			1			
Nonferrous metals and their products	2						2
Lumber and allied products	5	1		1	1		2
Stone, clay, and glass products	3	1	2				
Textiles and their products	33	7	11	7	6	2	
Leather and its manufactures	3	1	1	1			
Food and kindred products	8	4		2			2
Paper and printing	3			1	2		
Rubber products	4	3	1				
Miscellaneous manufactures	2	1		1			
Nonmanufacturing							
Extraction of minerals	7	5		1	1		
Transportation and communication	8	7			1		
Trade	4	1		1	1		1
Domestic and personal service	8	4	1	1	1	1	
Professional service	2	1	1				
Building and construction	8		2	2	2	1	1
Agriculture, etc	2	2					
Relief work and W. P. A	5	2	1	1	1		
Other nonmanufacturing industries	3	2					1
General strike	1	1					

Of the 115 strikes which ended in February, 38.3 percent, including 67.9 percent of the workers, were settled directly by the employers and representatives of organized workers. Four small strikes were settled directly by the employers and unorganized workers. In 33 strikes, including 20.6 percent of the workers, Government conciliators or labor boards assisted in the settlements. Twenty-six strikes, as shown in table 6, were terminated without formal settlements. In these cases the employees abandoned their fight and returned to work without settlements or else lost their jobs when the employers moved their plants, went out of business, or hired new workers to take the places of the strikers.

Table 6.—Methods of Negotiating Settlements of Strikes Ending in February 1936

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	115	100.0	41,326	100.0
Employers and workers directly	4	3.5	167	.4
Employers and representatives of organized workers directly	44	38.3	28,070	67.9
Government conciliators or labor boards	33	28.7	8,526	20.6
Private conciliators or arbitrators	3	2.6	1,237	3.0
Terminated without formal settlement	26	22.6	3,167	7.7
Not reported	5	4.3	159	.4

The results of the 115 strikes which ended in February are shown in tables 7 and 8. The largest group of workers (62.1 percent of the total) obtained substantially what they set out to gain by the strikes; 18.6 of the workers obtained partial gains or compromises; while 15.4 percent obtained little or no gains.

The figures in table 8 indicate that the workers met with greater success in the disputes over organization matters than in the wage and hour disputes. They obtained substantial gains in 46 percent of the organization disputes, as compared with 28 percent of the wage and hour disputes. They lost 33 percent of the strikes over union organization matters and 38 percent of the strikes over wages and hours.

Table 7.—Results of Strikes Ending in February 1936

Results	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	115	100.0	41,326	100.0
Substantial gains to workers	40	34.8	25,636	62.1
Partial gains or compromises	27	23.5	7,686	18.6
Little or no gains to workers	42	36.4	6,372	15.4
Jurisdictional or rival union settlements	4	3.5	116	.3
Undetermined	1	.9	1,500	3.6
Not reported	1	.9	16	(1)

[1] Less than 1/10 of 1 percent.

Table 8.—Results of Strikes Ending in February 1936, in Relation to Major Issues Involved

Major issue	Total	Number of strikes resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdictional or rival union settlements	Undetermined	Not reported
All issues	115	40	27	42	4	1	1
Wages and hours	**39**	**11**	**13**	**15**			
Wage increase	19	6	7	6			
Wage decrease	7	1	3	3			
Wage increase, hour decrease	7	3	2	2			
Wage decrease, hour increase	4	1	1	2			
Hour decrease	2			2			
Organization	**52**	**24**	**11**	**17**			
Recognition	14	7	4	3			
Recognition and wages	10	5	3	2			
Recognition, wages, and hours	13	8	1	4			
Closed shop	5	2	2	1			
Discrimination	10	2	1	7			
Miscellaneous	**24**	**5**	**3**	**10**	**4**	**1**	**1**
Sympathy	1					1	
Jurisdiction	4				4		
Other	16	5	3	8			
Not reported	3			2			1

Conciliation Work of the Department of Labor in April 1936

DURING April 1936, the Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 82 disputes, which affected a known total of 47,120 employees. Of these disputes, 34 were adjusted, 6 were referred to other agencies, 3 were settled by the parties at interest, 5 could not be adjusted, 33 were still pending, and in 1 case the plant was closed. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout, or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

Labor Disputes Handled by Commissioners of Conciliation During the Month of April 1936

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Commissioner assigned	Assignment completed	Workers involved	
							Directly	Indirectly
					1936	*1936*		
Electrical workers, Sacramento, Calif.	Strike	Electrical workers	Asked prevailing wage	Adjusted. Allowed $9.20 per day, union conditions.	Apr. 1	Apr. 20	34	-------
Chicago Casket Co., Chicago, Ill.	do	Casket workers	Wage cut	Unable to adjust	Apr. 2	May 4	135	50
Millinery workers, Atlanta, Ga.	Threatened strike.	Millinery workers	Working conditions	Pending	Apr. 3	----------	800	-------
Gwinn Bros., Huntington, W. Va.	Strike	Flour-mill workers	Wage cut	Unable to adjust. No concessions.	Feb. 28	Apr. 8	38	7
Narragansett Knitting Mills, Woonsocket, R. I.	do	Textile workers	Asked wage increase and union recognition.	Adjusted. Increase of from 5 to 20 percent and recognition.	Mar. 28	Apr. 7	125	-------
Tent and awning makers, Chicago, Ill.	do	Awning makers	Asked renewal of agreement	Unable to adjust. Refused proposals for settlement.	Mar. 25	Apr. 8	108	-------
B. C. Jarrell Co., Humbolt, Tenn.	do	Carpenters	Making of agreement	Adjusted. Satisfactory agreement concluded.	Apr. 4	Apr. 9	250	50
Bakers, Alameda and vicinity, Calif.	Threatened strike.	Bakers	Wages, hours, and conditions	Pending	do	----------	225	500
Quarry and stone workers, East St. Louis, Ill.	Strike	Stone workers	Asked 20 percent increase and 8-hour day.	Adjusted. Allowed small increase and closed shop.	do	Apr. 22	148	42
Hinchley Brass Fixture Co., Cleveland, Ohio.	do	Metal polishers	Working conditions and 1 discharge.	Adjusted. Satisfactory settlement.	do	Apr. 17	4	21
East Bay Automobile Dealers, Oakland, Calif.	Controversy	Mechanics	Wages and hours	Adjusted. Allowed 90 cents per hour and 40-hour week.	do	May 2	400	-------
Scranton Transit Co., Scranton, Pa.	Threatened strike.	Transit workers	Working conditions	Pending	Apr. 3	----------	(1)	-------
Punxsutawney Beef & Provision Co., Punxsutawney, Pa.	Strike	Provision workers	Wage increase and union recognition.	Adjusted. Agreed to arbitration of differences.	Apr. 1	Apr. 8	76	20
National Stock Yards, East St. Louis, Ill.	Threatened strike.	Stock-yards workers	Asked increase of 12½ cents per hour, seniority rights, and agreement.	Pending	Apr. 4	----------	250	30
Steam shovel and dredge workers, San Francisco, Calif.	Controversy	Dredgemen	Wages, hours, and working conditions.	do	Apr. 7	----------	250	500
Colonial Woolen Mills, Cleveland, Ohio.	do	Textile workers	Wages, seniority rights, and agreement.	do	do	----------	289	-------
Wagner Malleable Iron Co., Decatur, Ill.	Strike	Molders	Wages, union recognition, and conditions.	Adjusted. Satisfactory agreement.	do	Apr. 16	60	-------
J. P. Ward Foundry Co., Inc., Blossburg, Pa.	do	Foundry workers	Wages, hours, union recognition, and reinstatement of three discharged workers.	Adjusted. Union recognition and further negotiations on wages.	Apr. 6	Apr. 17	240	60
			Wages and working conditions	Pending	Apr. 8	----------	(1)	-------

Carthage Marble Corp., Carthage, Mo.	---do---	Marble workers	Wages and working conditions	Pending	Apr. 8		(1)	
Truck drivers, Philadelphia, Pa.	---do---	Drivers	Working conditions	---do---	Apr. 3		(1)	
Badger Malleable Iron Works, South Milwaukee, Wis.	---do---	Molders	Discharge of union molders	Adjusted. All returned; collective bargaining allowed.	Apr. 8	Apr. 13	100	25
Davis & Olsson Machine Works, Miami, Fla.	---do---	Machinists	Wages and agreement	Adjusted. Allowed $1 per hour and union conditions.	Apr. 3	May 2	8	6
Printing pressmen, Nashville, Tenn.	Controversy	Printing pressmen	Working conditions; conference refused.	Unclassified. Referred to National Labor Relations Board.	Apr. 8	Apr. 21	100	200
University building project, Atlanta, Ga.	Strike	Carpenters	Jurisdiction	Pending	Apr. 1		(1)	
Automobile dealers, San Pedro, Calif.	Controversy	Mechanics	Wages, hours, and conditions	Adjusted. Union agreement; joint committee for future differences.	Apr. 8	Apr. 10	125	
Dunlap Clothing Co., Cincinnati, Ohio.	Strike	Journeyman tailors	Asked wage increase, 40-hour week, and closed shop.	Adjusted. Wage increase and closed shop allowed.	Apr. 9	Apr. 13	10	
Barber shops, Chicago, Ill.	Threatened strike.	Barbers	Asked increase from $17 to $25 per week.	Adjusted. Minimum $20 per week and 60 percent commission on receipts over $31 per week.	---do---	Apr. 28	5,000	3,500
Neff Motor Sales Co., Dayton, Ohio.	Strike	Mechanics	Wages, conditions, and agreement.	Adjusted. Returned to work; further negotiations.	Apr. 1	Apr. 12	10	
Wanamakers' Store, Philadelphia, Pa.	---do---	Drivers and helpers	Wage increase, 48-hour week, and union recognition.	Adjusted. Satisfactory agreement.	Apr. 7	Apr. 21	115	17
Shell Petroleum Corporation, Houston, Tex.	Controversy	Machine-shop workers	Collective bargaining for machinists.	Unclassified. Referred to National Labor Relations Board.	---do---	Apr. 16	36	686
Memphis Furniture Co., Memphis, Tenn.	Threatened strike.	Furniture workers	Discharge of 10 workers	---do---	Apr. 10	Apr. 30	450	100
Art Metal Co., Cleveland, Ohio.	Strike	Art-metal workers	Wages, seniority rights, and agreement.	Adjusted. Increase of 10 percent for 90 days, and seniority rights.	---do---	Apr. 15	55	
Kantor Shirt Co., Lebanon, Pa.	---do---	Shirt makers	Wage cuts and conditions	Adjusted. Wages restored; 45-hour week; strikers not reemployed.	---do---	Apr. 14	395	5
Mosser Leather Co., Williamsport, Pa.	Controversy	Leather workers	Discharges and conditions	Unclassified. Plant closed on account of flood conditions.	Apr. 11	Apr. 18	220	1,000
Adams Co., Dubuque, Iowa	Threatened strike.	Machinists	Wage increase and collective bargaining.	Unable to adjust	Apr. 13	---do---	11	114
Motion-picture operators, Overland, Mo.	Controversy	Operators	Working conditions	Adjusted. Satisfactory understanding.	Apr. 15	Apr. 21	3	
Imperial Glass Co., Bellaire, Ohio.	Threatened strike.	Flint-glass workers	Wages, hours, and conditions	Adjusted. Signed union agreement.	Apr. 11	Apr. 17	384	
Ohio Seamless Tube Co., Shelby, Ohio.	Strike	Iron and steel tube makers.	Protest overtime work; discharges.	Adjusted. Satisfactory settlement.	Apr. 14	May 9	360	
Mix Creek Oil Co., Bradford, Pa.	Controversy	Oil workers	Alleged discrimination	Unclassified. Referred to National Labor Relations Board.	Apr. 2	Apr. 28	1	4
Kenyon Transformer Co., Bronx, N. Y.	Strike	Radio-factory workers	Asked collective bargaining and satisfactory working conditions.	Pending	Apr. 11		20	
Marion Machine & Foundry Co., Scottsdale, Pa.	Threatened strike.	Foundry workers	Wages and agreement	Unclassified. Referred to National Labor Relations Board.	Apr. 14	May 4	18	9
Carpenters, Youngstown, Ohio.	Strike	Carpenters	Hourly wage in dispute	Adjusted. Increase of 12½ cents per hour.	---do---	Apr. 27	300	

(1) Not yet reported.

Labor Disputes Handled by Commissioners of Conciliation During the Month of April 1936—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Commissioner assigned	Assignment completed	Workers involved	
							Directly	Indirectly
					1936	*1936*		
Russell & Erwin Co., New Britain, Conn.	Threatened strike.	Machinists	Making of agreement	Pending	Apr. 14		90	2,000
Belle Alkali Chemical Co., Charleston, W. Va.	Lockout	Chemical workers	Violation of agreement	Unable to adjust	do	Apr. 20	150	
Smallwood Low Stone Co., Brady, W. Va.	Strike	Quarry workers	Working conditions	Unclassified. Agreement secured before arrival of commissioner.	do	Apr. 18	24	
Show case and fixture makers, Los Angeles and vicinity, Calif.	do	Carpenters	Wages and conditions	Pending	Apr. 17		1,200	
Local and long-distance trucking companies, Rochester, N. Y.	do	Truck drivers	Asked 20 percent increase; conditions.	Adjusted. Increase of 5 percent; arbitration of other differences.	Apr. 15	Apr. 20	700	1,000
Pennsylvania Wire Glass Co., Uniontown, Pa.	do	Glass workers	Wages, union recognition, closed shop, and check-off.	Adjusted. Verbal agreement	Apr. 16	Apr. 23	150	
Public Works project, Catasauqua, Pa.	do	Carpenters	Asked 90 cents per hour	Adjusted. Carpenters, 90 cents; bricklayers, $1.12½ per hour.	Apr. 3	Apr. 14	6	75
Geometric Stamping Co., Cleveland, Ohio.	Threatened strike.	Machinists	Wages and working conditions	Pending	Apr. 20		(1)	
Fish-canning companies, San Pedro, Calif.	do	Seamen and fishermen	Asked agreement	do	Apr. 11		1,400	
Public Market Produce Dealers, Rochester, N. Y.	do	Truck drivers	Wages and signed agreement	Adjusted. Wages range from 40 to 60 cents per hour, 50-hour week, seniority rights, and overtime pay.	Apr. 15	Apr. 20	100	50
Maaniexit Spinning Co., Worcester, Mass.	Strike	Textile workers	Working conditions and 1 discharged.	Unclassified. Settled by other agencies before arrival of commissioner.	Apr. 20	Apr. 24	100	
Longshoremen, San Pedro and West Coast.	do	Longshoremen	Working conditions; violation of agreement.	Adjusted. Reaffirmed 1934 agreement.	Apr. 13	Apr. 21	4,000	12,000
Delta Chemical Co., Escanaba, Mich.	do	Chemical workers	Wages and agreement	Adjusted. Increase of 2 cents per hour and signed agreement.	Apr. 22	Apr. 26	300	10
Painters and paperhangers, Harrisburg, Pa.	do	Painters	Wages	Adjusted. Increase from 65 to 70 cents per hour until Sept. 1, then 75 cents and signed agreement.	Apr. 15	Apr. 20	75	
Saenger Theaters, Shreveport, La.	do	Operators	Asked signed agreement and improved conditions.	Pending	Apr. 21		8	60
Building project, Columbia, Mo.	Controversy	Carpenters	Dispute relative to nonunion workers.	do	do		(1)	
Heller Baking Co., Pitts-	Strike	Bakers	Wages, union recognition, and collective bargaining.	do	Apr. 22		280	
			Dispute relative to leasing of oil	Adjusted. Union men given pref-	Apr. 21	Apr. 24	70	
						May 1	145	15

Dispute relative to nonunion workers.	....do	....do			8	60		
Haller Baking Co., Pittsburgh, Pa.	Strike	Bakers	Wages, union recognition, and collective bargaining.	....do	Apr. 22		200	
Pure Oil Co., Akron, Ohio	....do	Station attendants	Dispute relative to leasing of oil stations.	Adjusted. Union men given preference in leasing stations.	Apr. 21	Apr. 24	70	
New Oxford Shoe Co., New Oxford, Pa.	....do	Shoe workers	Wages	Adjusted. Restored 20 percent wage cut; all returned.	Apr. 23	May 1	145	15
Barclay Dress Co., Inc., Hanover, Pa.	....do	Clothing workers	....do	Unclassified. Returned with small increase before arrival of commissioner.	....do	May 4	120	15
Universal Steel Mill, Bridgeville, Pa.	....do	Steel workers	Wages, working conditions, and agreement.	Pending	Apr. 25		817	
Post-office building, Calumet City, Ill.	Controversy	Plumbers	Alleged breach of contract	....do	Apr. 24		2	
Allegheny River Limestone Co., Templeton, Pa.	Lockout	Stoneworkers	Alleged discrimination for union affiliation.	....do	Apr. 25		110	
P. W. A. project, Detroit, Mich.	Controversy	Building-trades workers.	Prevailing rates of wages	....do	Apr. 22		(1)	
Hayward Poultry Producers' Association, Hayward, Calif.	Threatened strike.	Poultry workers	Asked agreement covering working conditions.	....do	Mar. 26		75	200
Pairpoint Corp., New Bedford, Mass.	....do	Flint-glass workers	Hours increased from 40 to 50 per week without increase in pay.	....do	Apr. 27		(1)	
Lebanon Shirt Co., Lebanon, Pa.	Strike	Shirtmakers	Asked 10-percent increase and signed agreement.	....do	Apr. 5		300	6
Post-office building, Newark, N. J.	Controversy	Building-trades workers.	Jurisdiction	....do	Apr. 28		(1)	
Northwestern Cooperage Co., Gladstone, Mich.	Strike	Coopers	Asked agreement on working conditions.	Adjusted. Returned with signed agreement.	Apr. 22	Apr. 29	1,000	
Coal-truck drivers, Rochester, N. Y.	Threatened strike.	Drivers	Asked 20 percent increase and signed agreement.	Adjusted. Increases of from 10 to 20 percent and signed agreement.	Apr. 27	May 1	400	200
Painters and paperhangers, Philadelphia, Pa.	....do	Painters	(1)	Pending	....do		(1)	
Stover Co., Freeport, Ill	Strike	Molders	Selection of grievance committee.	Unclassified. Referred to National Labor Relations Board.	Apr. 29	Apr. 30	400	
Burroughs California Towel Co., Oakland, Calif.	Threatened strike.	Laundry drivers	Wages	Pending	....do		(1)	
Carpenters, Augusta, Ga	....do	Carpenters	Asked increase and renewal of agreement.	....do	....do		125	250
Myers Spalti Furniture Co., Houston, Tex	Strike	Furniture workers	Wages, union recognition, and improved conditions.	....do	Apr. 22		260	33
Rayovac Co., Madison, Wis	Threatened strike.	Employees	(1)	....do	Apr. 30		700	
Canton Stamping & Enameling Co., Canton, Ohio.	Controversy	Stampers and enamelers.	Working conditions	....do	Apr. 27		(1)	
Standard Expert Optical Co., New York City.	Strike	Optical workers	Asked union conditions	....do	Mar. 31		5	
Bargemen, Buffalo, N. Y	Controversy	Bargemen	(1)	....do	Apr. 29		(1)	
Commodore Sightseeing Corporation, New York City.	....do	Salesmen and lecturers.	Interpretation of agreement	Adjusted. Satisfactory interpretation.	Apr. 20	Apr. 27	10	15
Total							24,245	22,875

[1] Not yet reported.

Strikes and Lockouts in Canada, 1935

A SUBSTANTIAL reduction was shown in 1935 as compared with 1934 in the number of strikes and lockouts in Canada, the number of workers involved, and the time loss involved. The time loss was for the most part in coal mining, logging, clothing manufacture, and transportation (longshoremen), but was also considerable in fishing, printing, and shoe and metal manufacturing. The more significant controversies in 1935 involved coal miners at Corbin, B. C., loggers in the Nipigon district in Ontario, longshoremen at Vancouver, B. C., and longshoremen, ship crews, etc., in various British Columbia ports who entered into sympathetic strikes with longshoremen at Vancouver and Montreal. Several disputes occurred in clothing, wood working, and shoe factories, and two rather extensive labor disturbances involved printing compositors.

The principal causes of the disputes in logging and fishing and in the clothing and shoe factories were demands for higher wages. The main causes of the disputes in which coal miners, longshoremen, and wood workers were involved were the relation of employers to unions and conditions connected with this relation. A few controversies arose from demands for the 8-hour day and for increases in hourly wage rates after a reduction in hours, but these disputes were soon settled.

The preceding data and the statistics in the following table are taken from a report in the Canadian Labor Gazette of February 1936 (pp. 111–137), on Strikes and Lockouts in Canada and Other Countries During the Year 1935.

Strikes and Lockouts in Canada, 1916 to 1935

Year	Number of disputes—		Disputes in existence in year		
	In existence in year	Beginning in year	Number of employers involved	Number of workers involved	Time lost (in man-days)
1916	120	118	332	26,538	236,814
1917	160	158	758	50,255	1,123,515
1918	230	228	782	79,743	847,942
1919	336	332	1,967	148,915	3,400,942
1920	322	310	1,374	60,327	799,536
1921	168	159	1,208	28,257	1,048,914
1922	104	89	732	43,775	1,528,661
1923	86	77	450	34,261	671,750
1924	70	64	435	34,310	1,295,064
1925	87	86	497	28,949	1,193,281
1926	77	75	512	23,834	266,601
1927	74	72	480	22,299	152,570
1928	98	96	548	17,581	224,212
1929	90	88	263	12,946	152,089
1930	67	67	338	13,768	91,797
1931	88	86	266	10,738	204,238
1932	116	111	497	23,390	255,000
1933	125	122	617	26,558	317,547
1934	191	189	1,100	45,800	574,519
1935	120	120	719	33,269	288,703

LABOR AWARDS AND DECISIONS

The 1936 Anthracite Agreement

AT THE beginning of the 12-weeks' conference of anthracite coal operators and representatives of the United Mine Workers of America called to discuss terms of the 1936 agreement, the operators demanded, among other things, a substantial wage decrease and the cooperation of the U. M. W. A. in putting an end to the so-called "bootleg" mining.[1] The miners demanded a wage increase, shorter hours, and the check-off.

As finally adopted, the agreement, which is to be in force from May 7, 1936, to April 30, 1938, provides for:

(a) The continuation of the terms and provisions of the award of the Anthracite Coal Strike Commission and subsequent agreements as well as the rulings and decisions of the Board of Conciliation.

(b) Beginning May 1, 1937, a reduction in working time from 8 to 7 hours per day and from 6 to 5 days per week, with a 6-day tolerance for 12 weeks in any contract year.

(c) The continuance of the 1930 wage rates for contract miners; beginning May 1, 1937, company men are to receive the same pay for 7 hours as was previously paid for 8.

(d) Each operator operating more than one colliery is to divide the working time equitably among his collieries, subject to a tolerance of not more than 20 percent from the high to the low.

(e) The check-off for union dues and assessments, the first not to exceed $1 per man per month and the latter not more than $2 per man in any calendar year.

In addition to the formal agreement, two resolutions were adopted at the conferences, as follows:

Resolved, That the Committee of Twelve created under the agreement of August 8, 1930, shall make a study of conditions in the industry, as they relate to health and safety, and shall recommend to the contracting parties measures and policies which, with due regard to their practicability, might be adopted to further promote the health and safety of those employed.

[1] So-called "bootleg" mining started during the early months of the depression (1929–1930) when idle miners began to dig coal from veins close to the surface and peddle it in neighboring communities. More recently it has become more or less formally organized, groups of miners with home-made or cast-off equipment getting coal from idle mines, which is then carried by truck to eastern cities and sold to dealers or through house-to-house canvassing at prices less than legitimately mined coal.

Resolved, That the Committee of Twelve created by the agreement of August 8, 1930, shall give consideration to the problems of the anthracite industry, the shrinking of its markets, its competitive position with other fuels, the study of illicit mining, and kindred matters, and shall recommend to the contracting parties joint action designed to improve the condition of the industry and to add to the prosperity of its employees, investors in its properties, and the communities dependent largely upon its operation.

Previous Agreements

COLLECTIVE bargaining and machinery for conciliation were established in the anthracite industry 33 years ago. The award of the Anthracite Coal Strike Commission of 1903 has been the basis of all subsequent agreements (1906, 1909, 1912, 1916, 1918, 1919, 1920, 1922, 1923, 1926, 1930), which have provided continuous collective-bargaining relations in the three anthracite districts (No. 1, No. 7, No. 9).

The 1903 award, in addition to establishing wage rates, provided for a permanent board of conciliation to adjust grievances on the job and for a method of selecting umpires for the arbitration of disputes arising during the life of the agreement. These provisions for conciliation and arbitration have been incorporated in every subsequent agreement. The 1916 agreement established the 8-hour day and granted a 7 percent wage increase. Although this agreement was to carry until 1920, further wage increases were provided in supplementary agreements during 1917 and 1918 to take care of war conditions.

When the joint conference of operators and mine workers was unable to reach a decision as to the terms of the 1920 agreement, President Wilson appointed an Anthracite Coal Commission to hear and decide the matters in dispute. The Commission's award, embodied in the 1920 contract, granted a 17 percent increase over 1918 rates.[2] In 1923, because of refusal of the operators to grant a 20 percent wage increase and the check-off, 155,000 anthracite miners went on strike. The settlement of this 3-weeks strike resulted in a 2-year contract which provided for a 10 percent wage increase but no check-off.[3] Operators and miners were again unable to come to terms in 1925 and a 5-month strike followed. The 4½-year agreement signed at the close of this strike continued the 1923 wage rates.[4] The 1930 agreement, which remained in effect until April 1, 1936, extended the 1926 wage and hour provisions. It also established a Committee of Twelve, 6 from each side, with power to call in outside experts, to consider problems which may arise in the industry.

[2] Monthly Labor Review, October 1920 (p. 92).
[3] Idem, July 1925 (p. 81).
[4] Idem, March 1926 (p. 89).

Arbitration Award for Building-Service Employees, New York City

IN ACCORDANCE with an agreement signed on March 15, 1936, by the Building Service Employees' International Union, Local No. 32–B, and the Realty Advisory Board on Labor Relations, Inc., the questions of wage rates for building-service workers in the Borough of Manhattan was submitted to F. A. Silcox for decision. His award, effective April 20, 1936, was based on four major considerations:

(1) A recognition of a principle of a living wage as fundamental in any sound approach to the problem of reasonable minimum-wage standards.

(2) The obvious necessity, in the real estate situation in the Borough of Manhattan, for some degree of unification of minimum-wage standards as related to kinds and classifications of buildings.

(3) The responsibility of the industry to make such financial adjustments as are necessary to pay a reasonable minimum standard of wages.

(4) The general improvement in business conditions which if to be continued requires a concurrent improvement in the income of wage earners.

The basis of a living wage was held by the arbitrator to be the cost of a minimum budget for a family of five. Three of the nine minimum rates established, however, fell below the lowest budget standard submitted (the so-called distress budget of $1,291.50), the arbitrator's reason being that "the process of reaching reasonable minimum standards measured by the principle of the living wage is one of evolution. Considering all of the evidence in this case, he has endeavored to establish in this award, within the limits of practical considerations, reasonable minimum standards of wages."

This award was the final step in a 13-day strike affecting thousands of office buildings and apartment houses throughout the city. A 2-day strike called by Local No. 32–B in November 1934 had not spread beyond the garment district when an agreement was reached to submit the disputed matters of wages and hours to arbitration. The award made at that time (the so-called Curran award) continued in effect 1 year, or until March 1, 1936. The 1936 strike was called when the union and realty board failed to agree upon terms for its renewal.

The present award covers the staffs of more than 2,500 buildings and is to remain in effect for 3 years. Either party has the privilege of requesting further arbitration on wages and hours at the end of each year.

Working Hours

ALTHOUGH a 48-hour week was demanded when the March 1936 strike was called, the agreement which ended the strike provided that all the terms of the 1935 award, except minimum standards of wages, should continue in effect. The 1935 award provided for a maximum 9-hour day, or 108 hours in any 14-day period for day men and 11

hours a day or 132 hours in any 14-day period for night men in apartment buildings; and a 48-hour week for all service employees in office and loft buildings except watchmen, who could be employed 72 hours.

Wage Rates

THE table below shows how the new minimum rates compare with the old.

Minimum-Wage Rates of Building-Service Employees, 1935 and 1936, by Class of Building

Class of building		1935	1936
Apartments:			
Class A (assessed valuation of $4,000 or more per room)	per month	$90	$98
Class B ($2,000 to $4,000 per room)	do	80	88
Class C (less than $2,000 per room)	do	70	78
Loft buildings:			
Class A (280,000 square feet or more)	per week	20	26
Class B (120,000 to 280,000 square feet)	do	20	24
Class C (less than 120,000 square feet)	do	20	22
Office buildings:			
Class A (280,000 square feet or more)	do	22	28
Class B (120,000 to 280,000 square feet)	do	22	26
Class C (less than 120,000 square feet)	do	22	24

LABOR TURN-OVER

Labor Turn-Over in Manufacturing Establishments, March 1936

A SHARP rise in the accession rate and a moderate decline in the total separation rate were indicated by the Bureau of Labor Statistics' survey of labor turn-over in manufacturing establishments for March. The hiring rate during the month was higher than for any month since October 1935 and the total separation rate was lower than for any month since February 1935.

All Manufacturing

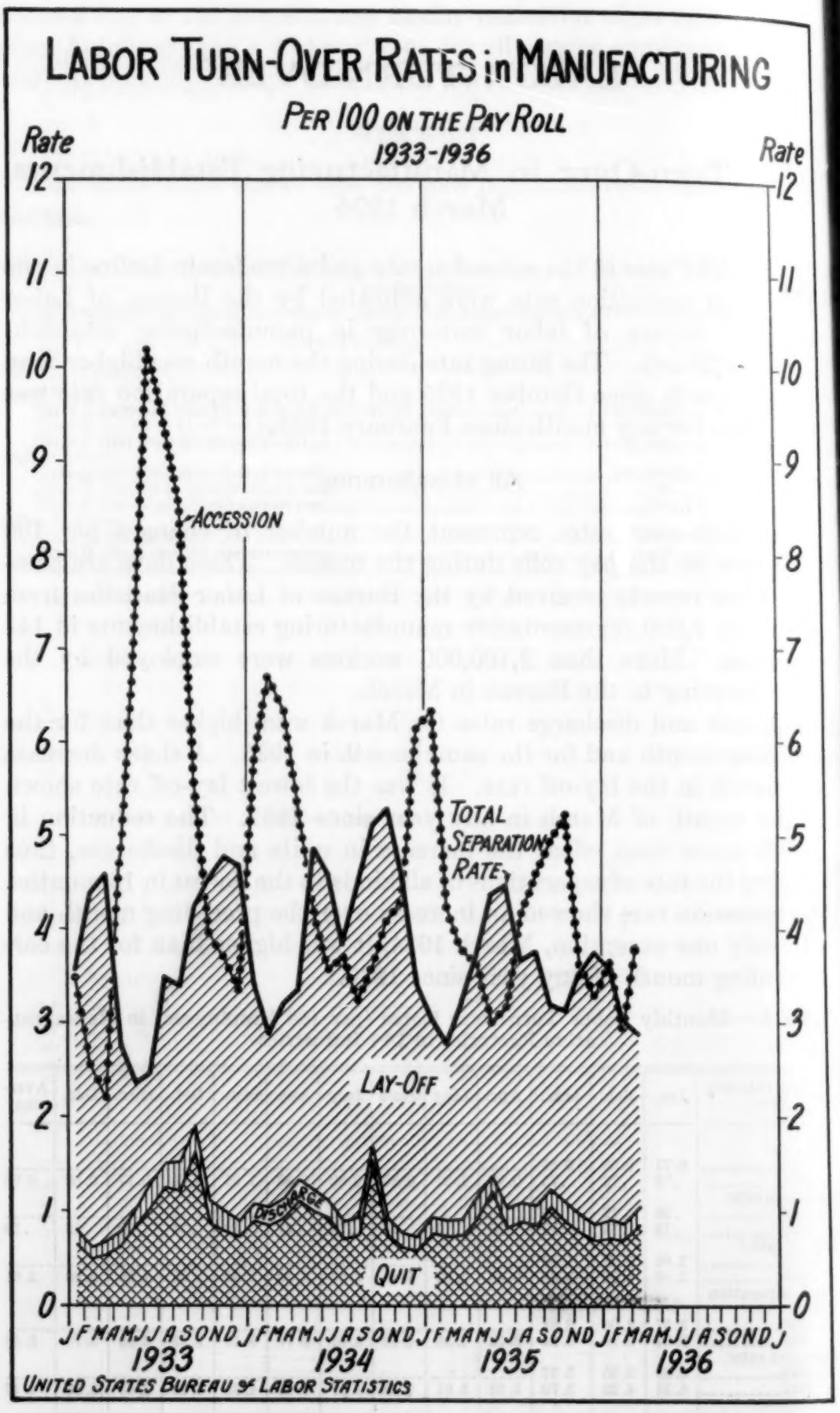
THE turn-over rates represent the number of changes per 100 employees on the pay rolls during the month. These data are compiled from reports received by the Bureau of Labor Statistics from more than 5,000 representative manufacturing establishments in 144 industries. More than 2,100,000 workers were employed by the firms reporting to the Bureau in March.

The quit and discharge rates for March were higher than for the preceding month and for the same month in 1935. A sharp decrease was shown in the lay-off rate. It was the lowest lay-off rate shown for the month of March in any year since 1931. The reduction in lay-offs more than offset the increase in quits and discharges, thus bringing the rate of separations of all kinds to the lowest in 13 months. The accession rate showed an increase over the preceding month and with only one exception, March 1934, it was higher than for the corresponding month of any year since 1930.

Table 1.—Monthly Labor Turn-Over Rates (per 100 Employees) in Representative Factories in 144 Industries

Class of rate and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
Quit rate:													
1936	0.71	0.68	0.86										
1935	.76	.73	.75	0.93	1.21	0.83	0.90	0.86	1.05	0.89	0.77	0.69	0.86
Discharge rate:													
1936	.20	.17	.19										
1935	.18	.18	.17	.20	.17	.20	.20	.21	.19	.21	.20	.18	.19
Lay-off rate:[1]													
1936	2.66	2.21	1.83										
1935	2.10	1.88	2.32	2.60	3.00	3.46	2.57	2.70	1.95	2.03	2.58	2.89	2.51
Total separation rate:													
1936	3.57	3.06	2.88										
1935	3.04	2.79	3.24	3.73	4.38	4.49	3.67	3.77	3.19	3.13	3.55	3.76	3.56
Accession rate:													
1936	3.65	2.95	3.97										
1935	6.33	4.23	3.79	3.63	3.01	3.18	4.17	4.60	4.95	5.23	3.63	3.30	4.17

[1] Including temporary, indeterminate and permanent lay-offs.


LABOR TURN-OVER RATES in MANUFACTURING
PER 100 ON THE PAY ROLL
1933-1936
Rate
Rate
12
11
10
9
8
7
6
5
4
3
2
1
0
ACCESSION
TOTAL SEPARATION RATE
LAY-OFF
DISCHARGE
QUIT
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J
1933
1934
1935
1936
UNITED STATES BUREAU of LABOR STATISTICS

Thirteen Industries

In addition to the information for manufacturing as a whole, details of labor turn-over are available for 13 separate manufacturing industries. For these industries, the Bureau's sample covers firms accounting for at least 25 percent of the total number of wage earners employed.

In 8 of the 13 industries, the accession rate exceeded the total separation rate; 6 of these were in the durable-goods group. The highest quit rate occurred in the sawmill industry and the lowest in petroleum refining. The automobile parts and equipment industry showed the highest discharge rate, men's clothing the lowest. The highest lay-off rate was indicated in slaughtering and meat packing; iron and steel registered the lowest. Iron and steel also showed the lowest total separation rate; slaughtering and meat packing the highest. The highest accession rate was indicated in brick manufacturing and the lowest in the boot and shoe industry.

Table 2.—Monthly Turn-Over Rates (per 100 Employees) in Specified Industries

Class of rate	March 1936	February 1936	March 1935	March 1936	February 1936	March 1935	March 1936	February 1936	March 1935
	Automobiles and bodies			Automobile parts			Boots and shoes		
Quit rate	0.92	0.70	1.72	1.40	0.88	1.30	0.68	0.57	0.66
Discharge rate	.18	.15	.29	.39	.34	.34	.18	.19	.22
Lay-off rate	1.77	3.29	2.05	2.81	5.46	4.91	1.78	1.01	1.24
Total separation rate	2.87	4.14	4.06	4.60	6.68	6.55	2.64	1.77	2.12
Accession rate	4.98	3.77	5.86	5.87	2.99	4.04	1.85	2.51	2.42
	Bricks			Cigars and cigarettes			Cotton manufacturing		
Quit rate	0.84	0.54	0.36	0.93	1.09	0.58	1.16	1.07	1.07
Discharge rate	.20	.13	.08	.25	.23	.10	.30	.26	.33
Lay-off rate	2.93	5.80	5.05	1.45	1.66	1.59	2.29	2.56	4.31
Total separation rate	3.97	6.47	5.49	2.63	2.98	2.27	3.75	3.89	5.71
Accession rate	13.09	4.61	11.81	3.09	4.16	4.87	2.97	3.18	3.92
	Foundries and machine shops			Furniture			Iron and steel		
Quit rate	1.07	0.74	0.70	0.81	0.54	0.72	0.75	0.67	0.75
Discharge rate	.29	.26	.24	.17	.19	.25	.10	.08	.06
Lay-off rate	1.32	1.91	1.96	3.16	2.32	2.37	.68	1.24	.89
Total separation rate	2.68	2.91	2.90	4.14	3.05	3.34	1.53	1.99	1.70
Accession rate	5.17	3.72	5.35	3.45	3.13	5.46	2.51	1.67	1.78
	Men's clothing			Petroleum refining			Sawmills		
Quit rate	0.80	0.65	0.83	0.60	0.42	0.37	1.57	1.13	1.08
Discharge rate	.07	.13	.21	.08	.13	.15	.31	.29	.39
Lay-off rate	1.86	1.35	1.35	1.90	2.97	2.00	3.06	3.42	4.79
Total separation rate	2.73	2.13	2.39	2.58	3.52	2.52	4.94	4.84	6.26
Accession rate	2.45	3.21	4.48	3.48	2.82	2.36	9.86	5.84	7.97
	Slaughtering and meat packing								
Quit rate	0.81	0.65	0.61						
Discharge rate	.21	.21	.24						
Lay-off rate	5.95	8.69	9.87						
Total separation rate	6.97	9.55	10.72						
Accession rate	6.52	7.10	7.07						

WAGES AND HOURS OF LABOR

Wages, Hours, and Working Conditions in the Folding Paper-Box Industry in 1933, 1934, and 1935 [1]

AVERAGE hourly earnings in the folding-paper-box industry changed but little and average weekly hours and average weekly earnings each increased about 6 percent between August 1934 and 1935.[2] Compared to May 1933, however, the changes represent a gain of 27 percent in average earnings per hour, a reduction of 11 percent in average hours per week, and an increase of 13 percent in average earnings per week. These facts were disclosed in a recent survey made by the Bureau of Labor Statistics, which covered pre-code, code, and post-code conditions in the industry.

Scope and Method

THE object of this survey was to determine what changes had occurred in wages and hours of labor in this industry as the result (1) of the adoption of the President's Reemployment Agreement and the code, and (2) of the elimination of the code following the decision by the United States Supreme Court in the *Schechter case*. The President's Reemployment Agreement went into effect during the latter part of July 1933, although substitute provisions covering this industry were adopted shortly thereafter. The code became effective on January 8, 1934, and was discontinued on May 27, 1935. The three payroll periods for which information was obtained fell within the last half of May 1933 and August 1934 and 1935. Accordingly, the first period was 2 months prior to the President's Reemployment Agreement, the next one about 8 months after the adoption of the code, and the last one 3 months after the termination of the code regulations.

There are no separate figures published by the Bureau of the Census on the folding-paper-box industry.[3] However, in the letter of Administrator Hugh S. Johnson to the President, under date of December

[1] Prepared by Victor S. Baril, of the Bureau's Division of Wages, Hours, and Working Conditions.

[2] This industry was defined by the code as including "the manufacture and sale of containers (other than fiber or corrugated shipping containers), which, or the integral parts of the multipiece units of which, are made from a single piece of one or more plies of boxboard and in the primary joints and/or closures of which the final outer surface of the blank is in direct contact with the final inner surface of the blank, when assembled."

[3] The Census of Manufactures includes folding paper boxes in "Boxes, paper, not elsewhere classified," which in 1933 reported 1,104 establishments with a total of 53,111 employees (5,891 salaried workers and 47,220 wage earners).

0, 1933, recommending the approval of the code, it was stated that here were in this industry 370 firms with approximately 15,500 employees. In May 1933, the total coverage of this survey was 161 plants with 4,546 employees. During the two succeeding periods, however, the sample was extended to 204 identical plants, the number of employees scheduled being 7,601 in August 1934 and 7,865 in August 1935.[4] On the basis of the above figures, the coverage is estimated conservatively to be at least 45 percent of the total number of employees in the industry. Table 1 presents a detailed picture of the coverage for each of the three pay-roll periods.

Table 1.—Coverage of Survey During Each of 3 Pay-Roll Periods

Pay-roll period	United States				North				South			
	Number of plants	Number of employees			Number of plants	Number of employees			Number of plants	Number of employees		
		Total	Males	Females		Total	Males	Females		Total	Males	Females
May 1933	161	4,546	3,396	1,150	137	4,199	3,143	1,056	24	347	253	94
August 1934	204	7,601	5,794	1,807	180	7,096	5,417	1,679	24	505	377	128
August 1935	204	7,865	6,034	1,831	180	7,318	5,616	1,702	24	547	418	129

Folding paper boxes are used primarily for the packaging of goods, thus being utilized in a variety of industries.[5] As a result, the plants making such boxes are widely distributed over the country. This survey covered 31 States. As the code made a distinction between the North and the South, a similar geographical breakdown was employed here, with the Southern region including 8 and the Northern 23 of the States covered.[6] In August 1935, according to table 1, only 24 plants with 547 employees were located in the South, as compared with 180 plants and 7,318 workers in the North.

Not all of the 204 plants covered in August 1935 were independent establishments. Some also manufactured either set-up or solid-fiber and corrugated boxes in addition to folding boxes, others were either paper mills or printing establishments which made folding boxes only as a side line, and a small number of plants were engaged primarily in

[4] No plant was scheduled unless it had records available for the last two pay-roll periods. However, 161 of the 204 plants also had records for May 1933.

[5] Folding boxes should not be confused with shipping containers, which are made from solid fiber or corrugated board.

[6] The code designated the States of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia as belonging to the Southern zone. Of these, the only States that are not represented in this survey are Florida, Mississippi, and South Carolina. The remaining 23 States, which are classed here as belonging to the Northern zone, are California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Washington, and Wisconsin.

some other line of business but made folding boxes for their own use. The last-named group has been termed "consumer plants." In fact, out of more than 27,000 workers employed in all of the above establishments only about 8,000, or less than one-third, were engaged in the manufacture of folding boxes. This indicates clearly to what extent the folding-paper-box industry is integrated with other industries.

In selecting the sample, it was endeavored to make the plant coverage fully representative as to size. In classifying plants according to size, however, the total employment rather than just the folding-box employment was used as the basis. The classification employed is shown in table 2.[8]

Table 2.—Coverage of Survey According to Size of Plant, August 1935

Size of plant (total employment)	Number of establishments	Number of folding-paper-box employees
Under 20 employees	47	445
20 and under 30 employees	23	385
30 and under 50 employees	35	890
50 and under 100 employees	45	1,842
100 and under 300 employees	27	1,707
300 employees and over	27	2,596
Total	204	7,865

The information collected in this survey covered wages and hours, technological processes together with occupational descriptions, and personnel policies. The wages and hours data were obtained from actual time cards and pay-roll records, covering for each worker the occupation, color,[9] sex, method of wage payment (including the rate of pay, if on a time basis), the total hours actually worked, and total earnings. These figures were used to compute average hourly earnings, weekly hours, and weekly earnings by region, sex, occupation, etc. Special tabulations were also made by direct and indirect labor, independent and consumer plants, size of plant, size of city, and method of wage payment. Likewise, the information pertaining to technological and occupational descriptions and personnel policies has been summarized.[10]

[7] More than 75 percent of the total number of establishments covered were engaged principally in the manufacture of converted paper products, about 20 percent were either paper mills or printing establishments, and the remaining 5 percent were consumer plants. However, strictly folding-box employees were evenly divided between the converted-paper-box and remaining plants.

[8] A more detailed analysis of the distribution of plants according to size indicates that those engaged primarily in the manufacture of converted paper products are generally small; 65 percent of these plants had fewer than 50 employees, 90 percent had fewer than 100 employees, 9 percent between 100 and 300 employees, and only 1 plant had over 300 employees. On the other hand, the plants in which the manufacture of folding paper boxes was a secondary line were much larger, as 80 percent of them had over 100 employees and 50 percent over 300 employees.

[9] Colored workers constituted only about 1 percent of the total colored, and as a result no separate tabulations were made for them.

[10] These special tabulations, as well as the technological and occupational descriptions, and the summary of personnel policies, will appear later in the bulletin.

Average Hourly Earnings

Changes for the Country as a Whole

THE average earnings per hour of all employees in the industry, according to table 3, amounted to 42.1 cents in May 1933, 53.2 cents in August 1934, and 53.5 cents in August 1935. This represents a total increase of 11.4 cents, or 27.1 percent, of which 11.1 cents, or 26.4 percent, occurred between the precode period of May 1933 and the code period of August 1934, there being hardly any change between the latter and the post-code period of August 1935.

Table 3.—Average Hourly Earnings, by Region and Sex, in 3 Pay-Roll Periods

Region and sex	Average hourly earnings			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
United States	$0.421	$0.532	$0.535	+26.4	+0.6	+27.1
Males	.466	.576	.577	+23.6	+.2	+23.8
Females	.278	.386	.389	+38.8	+.8	+39.9
North	.431	.539	.544	+25.1	+.9	+26.2
Males	.476	.584	.586	+22.7	+.3	+23.1
Females	.283	.389	.395	+37.5	+1.5	+39.6
South	.307	.430	.415	+40.1	−3.5	+35.2
Males	.338	.461	.444	+36.4	−3.7	+31.4
Females	.214	.330	.316	+54.2	−4.2	+47.7

The same story is told by the percentage distribution according to average hourly earnings (shown in table 4); namely, a radical change between the first two periods and only a slight difference between the last two periods. The adoption of the President's Reemployment Agreement and of the code seems to have affected considerably the low-paid workers. Thus, in August 1934, only 3.4 percent of the employees earned less than 35 cents per hour, as compared with 41.6 percent receiving less than that amount in March 1933. Most of these low-paid workers were shifted to the class of 35 and under 45 cents, as may be seen from the fact that the percentage in that class rose from 22.6 in 1933 to 42.1 in 1934. That the gain in average hourly earnings also extended to the higher-paid employees is brought out by the fact that between the two periods the increases were from 18.9 to 28.1 percent in the class of 45 and under 60 cents, from 15.6 to 22.3 percent in the class of 60 cents and under $1, and from 1.3 to 4.1 percent in the class of $1 and over. On the other hand, the chief effect of the discontinuance of the code was a slight increase in the relative number of low-paid workers. Hence, the percentage of employees paid less than 35 cents increased from 3.4 in August 1934 to 5.2 in August 1935. This was accompanied by a reduction in the class earning 35 and under 45 cents

from 42.1 percent in 1934 to 38.1 percent in 1935, there being ver
little shift in each of the two higher-paid classes mentioned abov

Table 4.—Percentage Distribution of Employees According to Average Hour
Earnings in 3 Pay-Roll Periods

Average hourly earnings	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumul tive pe centag
10 and under 15 cents	1.3	1.3	(1)	(1)		
15 and under 20 cents	3.7	5.0		(1)	0.1	
20 and under 25 cents	11.8	16.8	0.1	0.1	.2	
25 and under 30 cents	11.2	28.0	.3	.4	1.2	
30 and under 35 cents	13.6	41.6	3.0	3.4	3.7	
35 and under 40 cents	11.9	53.5	18.0	21.4	16.9	
40 and under 45 cents	10.7	64.2	24.1	45.5	21.2	
45 and under 50 cents	7.9	72.1	12.1	57.6	12.3	
50 and under 55 cents	7.2	79.3	9.6	67.2	10.2	
55 and under 60 cents	3.8	83.1	6.4	73.6	7.2	
60 and under 70 cents	7.2	90.3	9.7	83.3	9.7	
70 and under 80 cents	4.6	94.9	5.5	88.8	5.8	
80 and under 100 cents	3.8	98.7	7.1	95.9	7.1	
100 and under 120 cents	.9	99.6	3.0	98.9	3.4	
120 cents and over	.4	100.0	1.1	100.0	1.0	
Total	100.0		100.0		100.0	

[1] Less than 1/10 of 1 percent.

Changes by Sex and Region

From May 1933 to August 1934, as appears from table 3, the South led the North both in relative and absolute increases in average hourly earnings. During this period the average hourly earnings in the South rose 36.4 percent (12.3 cents) for males and 54.2 percent (11.6 cents) for females, while in the North they advanced 22.7 percent (10.8 cents) for males and 37.5 percent (10.6 cents) for females. In both districts the gains made by females were relatively, but not absolutely, greater than those of males. The above phenomena were due in a large measure to the low wages of both sexes in the South and of females in the North prior to the President's Reemployment Agreement and the code, thus making it necessary to bring the earnings in line with the minimum rates set up under the National Recovery Administration.

In August 1935, when the code was no longer in effect, most of the increases in average hourly earnings made under the National Recovery Administration were still being maintained. While in the South the averages declined 3.7 percent (1.7 cents) for males and 4.2 percent (1.4 cents) for females, the averages in the North increased 0.3 percent (0.2 cent) for males and 1.5 percent (0.6 cent) for females. These gains, coupled with the large number of workers in the North, were responsible for the slight rise in the industry average between August 1934 and August 1935.

The changes in average earnings per hour between each of the periods affected to some extent both the regional and sex differentials. On a regional basis, the differentials declined between May 1933 and August 1934 but increased between the latter period and August 1935. Thus, the average of males in the North exceeded that in the South, respectively, by 13.8, 12.3, and 14.2 cents, while the average of females in the North was greater than that in the South, respectively, by 6.9, 5.9, and 7.9 cents. As regards the sex differential within each region, it appears that it was more or less constant (approximately 9 cents in favor of northern males and 13 cents in favor of southern males) throughout the entire period.

As in other codes, the one [11] for this industry also set up minimum rates of wages per hour, varying with region and sex. For "any laborer, mechanical worker, or artisan", these rates were 40 cents for males in the North, 35 cents for females in the North and males in the South, and 30 cents for females in the South.[12] Piece workers were to be paid "at rates which will yield a worker for an hour's work not less than the minimum rate above prescribed." Women doing practically the same work as men were to receive the same rates as the latter. It was also provided that minors in the office under 18 years,[13] as well as substandard workers, could be paid not less than 80 percent of the minimum. The code also stipulated that the wage rates of those already earning more than the minimum were to be reviewed and such adjustments, if any, made therein as are equitable in the light of all the circumstances."

Changes in Percentage Distributions of Employees

Among the males in the North, who constituted about 75 percent of the total employees scheduled during each period, the influence of the code is quite evident from an examination of table 5. With a minimum of 40 cents per hour, the percentage earning less than that amount was reduced from 37.6 in May 1933 to only 2.0 in August 1934. The latter must have been composed either of substandard workers or those paid in violation of the code, although it is interesting to note that very few were found at less than 32 cents, which is the lowest possible rate (80 percent of the minimum) allowed for any male in this region. Another effect of the 40-cent code minimum was to bring about a concentration of employees at that rate, with 17.4

[11] The substitute provisions of the President's Reemployment Agreement relating to rates of pay were as follows: "Factory or mechanical workers or artisans shall be paid not less than 40 cents per hour unless the rate for the same class of work on July 15, 1929, was less than 40 cents per hour, and in the latter case such employees shall be paid not less than the rate on July 15, 1929; but in no case shall the minimum rate be less than 32½ cents per hour in the North and 30 cents per hour in the South. All overtime shall be at the rate of time and one-third. This paragraph establishes a guaranteed minimum rate of pay regardless of whether the employee is compensated on a basis of a time rate or on piece-work performance."

[12] The minimum rates of wages set for the remaining employees were $16 per week in the North and $14 per week in the South.

[13] Their number was limited to 5 percent of the total number of employees.

percent earning exactly that figure in August 1934 as against 3.9 pe cent in May 1933. The effect of the code was also to produce a co tinual shift of the remaining employees from lower- to higher-pa classes, as evidenced by the fact that beginning with 40 cents eve wage class showed an increase in the relative number of workers b tween the two periods. Following the discontinuance of the cod however, the percentage of employees receiving less than 40 cents p hour advanced from 2.0 in August 1934 to 5.2 in August 1935. Th was accompanied by a reduction in the class of 40 and under 45 cen from 27.6 percent in the former period to 21.9 percent in the latt period, the drop being largely due to the decrease in the earnings of number of workers who had been receiving exactly 40 cents under th code.[14] In the classes above 45 cents there was very little change i the respective percentages between the two periods, thus indicatin that, with the exception of the rather minor shift noted above, ther was little disturbance in the wage structure after the code passed ou of existence.

Table 5.—Percentage Distribution of Employees According to Average Hour Earnings, by Region and Sex, in 3 Pay-Roll Periods

Region, sex, and average hourly earnings	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
North						
Males receiving—						
10 and under 15 cents	0.4	0.4	(1)	(1)		
15 and under 20 cents	1.0	1.4		(1)		
20 and under 25 cents	4.5	5.9	(1)	(1)	0.1	0
25 and under 30 cents	6.7	12.6	0.1	0.1	.4	
30 and under 35 cents	11.2	23.8	.5	.6	1.5	2
35 and under 40 cents	13.8	37.6	1.4	2.0	3.2	5
40 cents	3.9	41.5	17.4	19.4	13.0	18
Over 40 and under 45 cents	9.9	51.4	10.2	29.6	8.9	27
45 and under 50 cents	10.6	62.0	15.0	44.6	15.0	42
50 and under 55 cents	9.6	71.6	12.0	56.6	12.6	54
55 and under 60 cents	5.1	76.7	8.5	65.1	9.5	64
60 and under 70 cents	9.7	86.4	12.5	77.6	12.6	76
70 and under 80 cents	6.5	92.9	7.4	85.0	7.7	84
80 and under 100 cents	5.4	98.3	9.4	94.4	9.6	94
100 and under 120 cents	1.2	99.5	4.0	98.4	4.5	98
120 cents and over	0.5	100.0	1.6	100.0	1.4	100
Total	100.0		100.0		100.0	
Females receiving—						
Under 15 cents	.9	.9				
15 and under 20 cents	8.5	9.4	.1	.1	.1	
20 and under 25 cents	28.9	38.3	.3	.4	.1	
25 and under 30 cents	24.5	62.8	.2	.6	3.4	3
30 and under 35 cents	23.0	85.8	5.9	6.5	5.9	9
35 cents	.4	86.2	32.8	39.3	26.1	35
Over 35 and under 40 cents	6.8	93.0	32.6	71.9	28.7	64
40 and under 45 cents	2.6	95.6	16.8	88.7	21.8	86
45 and under 50 cents	.9	96.5	4.6	93.3	5.8	91
50 and under 55 cents	1.6	98.1	3.0	96.3	4.5	96
55 and under 60 cents	.5	98.6	1.0	97.3	1.2	97
60 cents and over	1.4	100.0	2.7	100.0	2.4	100
Total	100.0		100.0		100.0	

[1] Less than 1/10 of 1 percent.

[14] The decline in the percentage was from 17.4 in August 1934 to 13.0 in August 1935.

Table 5.—Percentage Distribution of Employees According to Average Hourly Earnings, by Region and Sex, in 3 Pay-Roll Periods—Continued

Region, sex, and average hourly earnings	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
South						
Males receiving—						
10 and under 15 cents	6.3	6.3				
15 and under 20 cents	9.5	15.8				
20 and under 25 cents	23.6	39.4			2.1	2.1
25 and under 30 cents	10.7	50.1	1.6	1.6	1.4	3.5
30 and under 35 cents	9.5	59.6	4.3	5.9	3.4	6.9
35 cents	1.6	61.2	32.9	38.8	32.1	39.0
Over 35 and under 40 cents	7.9	69.1	14.1	52.9	17.2	56.2
40 and under 45 cents	9.5	78.6	12.7	65.6	14.6	70.8
45 and under 50 cents	5.5	84.1	7.1	72.7	5.9	76.7
50 and under 55 cents	4.0	88.1	6.4	79.1	4.3	81.0
55 and under 60 cents	2.4	90.5	2.4	81.5	3.1	84.1
60 and under 70 cents	4.3	94.8	10.6	92.1	7.2	91.3
70 and under 80 cents	2.8	97.6	2.1	94.2	3.6	94.9
80 and under 100 cents	1.6	99.2	4.2	98.4	3.4	98.3
100 cents and over	.8	100.0	1.6	100.0	1.7	100.0
Total	100.0		100.0		100.0	
Females receiving—						
Under 15 cents	20.2	20.2				
15 and under 20 cents	24.5	44.7			5.4	5.4
20 and under 25 cents	31.8	76.5	.8	.8	.8	6.2
25 and under 30 cents	11.7	88.2	4.7	5.5	8.5	14.7
30 cents		88.2	39.8	45.3	36.4	51.1
Over 30 and under 35 cents	3.2	91.4	29.7	75.0	29.4	80.5
35 and under 40 cents	6.4	97.8	14.8	89.8	10.9	91.4
40 and under 45 cents	1.1	98.9	5.5	95.3	3.9	95.3
45 and under 50 cents		98.9	1.6	96.9	3.1	98.4
50 cents and over	1.1	100.0	3.1	100.0	1.6	100.0
Total	100.0		100.0		100.0	

The changes pertaining to males in the South were even more striking, although this group made up only about 5 percent of the employees covered. With a code minimum of 35 cents per hour, the percentage earning less than that amount dropped from 59.6 in May 1933 to 5.9 in August 1934.[15] The percentage receiving exactly 35 cents rose from only 1.6 in the former period to 32.9 in the latter period. Practically every wage class above 35 cents also showed a larger relative number of workers in August 1934 as compared with May 1933. The percentage paid under 35 cents increased from 5.9 in August 1934 to 6.9 in August 1935. There was also a gain in those earning 35 and under 45 cents from 59.7 to 63.9 percent, which was accompanied by a decrease in the percentages in the group of 45 and under 70 cents from 26.5 to 20.5, thus indicating that the cutting of wages in this group after the code extended to the higher-paid classes. The percentage of employees earning 70 cents and over advanced slightly, from 7.9 in August 1934 to 8.7 in August 1935.

The most striking shifts in workers from lower to higher wage classes, however, occurred among females in both districts. In the North, where the females constituted approximately 22 percent of

[15] There were only 2 employees who were paid less than 28 cents (80 percent of minimum) in that period.

the total employees scheduled, those earning less than the code minimum of 35 cents declined from as high a figure as 85.8 percent in May 1933 to only 6.5 percent in August 1934. During the latter period less than 1 percent were paid under 28 cents, or 80 percent of the minimum, which was the lowest possible rate under the code. The percentage receiving exactly 35 cents rose from 0.4 in May 1933 to 32.8 in August 1934. Whereas in the former period more than three-quarters of the employees were paid 20 and under 35 cents per hour, in the latter period more than four-fifths (82.2 percent) of the total were earning 35 and under 45 cents. This compared with only 9.8 percent falling in the latter class in 1933. Likewise, the percentage receiving 45 cents and over increased from 4.4 to 11.3 between the two periods. From August 1934 to August 1935, however, the percentage of employees rose from 6.5 to 9.5 in the various classes under 35 cents, decreased from 65.4 to 54.8 in the 35 and under 40 cents class, and increased from 28.1 to 35.7 in the classes of 40 cents and over. In other words, it seems that after the code there was a tendency for some of the medium-paid employees to be shifted to lower and others to higher wage classes.[16]

The female workers in the South constituted only about 2 percent of the total employees scheduled. The effect of the 30-cent code minimum upon this group was to reduce the percentage earning less than that amount from 88.2 in May 1933 to 5.5 in August 1934. While no female worker earned exactly 30 cents per hour in May 1933, actually 39.8 percent received that amount in August 1934. At the same time the percentage in the class of 30 and under 35 cents rose from 5.3 to 69.5. The percentage earning 35 cents and over advanced from 8.6 in May 1933 to 25.0 in August 1934. With the discontinuance of the code in August 1935, those earning under 30 cents increased to 14.7 percent, while those paid 30 and under 35 cents and 35 cents and over declined respectively to 65.8 and 19.5 percent, thus indicating clearly that the retrogression affected all the relatively higher-paid employees.

Changes by Occupational Classes

The extent of the changes in average hourly earnings by individual occupations and occupational groupings [17] is shown in table 6.

[16] The number earning exactly 35 cents per hour declined from 32.8 percent in August 1934 to 26.1 percent in August 1935, which indicates that it was largely this group that suffered wage reductions after the discontinuance of the code.

[17] These consist of occupations not sufficiently large to justify the presentation of separate averages.

Table 6.—Average Hourly Earnings, by Region, Sex, and Occupational Classes, in 3 Pay-Roll Periods

Region, sex, and occupational class	Average hourly earnings			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
North						
Males:						
Compositors, hand and machine	$0.640	$0.770	$0.790	+20.3	+2.6	+23.4
Die makers	.684	.806	.815	+17.8	+1.1	+19.2
Pressmen	.650	.789	.798	+21.4	+1.1	+22.8
Press feeders	.401	.504	.506	+25.7	+.4	+26.2
Pressmen and feeders	.509	.619	.621	+21.6	+.3	+22.0
Machine adjusters and repairmen	.624	.714	.733	+14.4	+2.7	+17.5
Cutter feeders	.445	.550	.549	+23.6	−.2	+23.4
Strippers	.364	.482	.483	+32.4	+.2	+32.7
Automatic gluing and folding-machine operators	.538	.609	.618	+13.2	+1.5	+14.9
Automatic gluing- and folding-machine feeders	.385	.445	.442	+15.6	−.7	+14.8
Machine helpers	.354	.448	.453	+26.6	+1.1	+28.0
Bundlers and packers	.364	.491	.492	+34.9	+.2	+35.2
Laborers (loaders, unloaders, etc.)	.360	.453	.454	+25.8	+.2	+26.1
Machine feeders	.357	.461	.466	+29.1	+1.1	+30.5
Truck drivers	.465	.536	.533	+15.3	−.6	+14.6
Die makers' helpers	.351	.480	.523	+36.8	+9.0	+49.0
Pressmen's helpers	.417	.530	.554	+27.1	+4.5	+32.9
Supervisory employees, office and plant	.752	.935	.933	+24.3	−.2	+24.1
Clerical employees, office and plant	.485	.586	.590	+20.8	+.7	+21.6
Miscellaneous direct workers, skilled	.585	.700	.706	+20.0	+.9	+20.7
Miscellaneous direct workers, semiskilled	.350	.472	.486	+34.9	+3.0	+38.9
Miscellaneous indirect workers, skilled	.754	.930	.919	+23.3	−1.2	+21.9
Miscellaneous indirect workers, semiskilled	.438	.520	.546	+18.7	+5.0	+24.7
Miscellaneous indirect workers, unskilled	.367	.467	.482	+27.2	+3.2	+31.3
Power and maintenance workers, skilled	.602	.725	.727	+20.4	+.3	+20.8
Power and maintenance workers, semiskilled	.437	.509	.499	+16.5	−2.0	+14.2
Service workers, miscellaneous	.335	.435	.440	+29.9	+1.1	+31.3
Total	.476	.584	.586	+22.7	+.3	+23.1
Females:						
Press feeders	.274	.382	.384	+39.4	+.5	+40.1
Strippers	.294	.382	.376	+29.9	−1.6	+27.9
Automatic gluing- and folding-machine feeders	.256	.370	.386	+44.5	+4.3	+50.8
Stitcher operators	.273	.379	.396	+38.8	+4.5	+45.1
Machine helpers	.245	.367	.369	+49.8	+.5	+50.6
Bundlers and packers	.278	.382	.381	+37.4	−.3	+37.1
Machine feeders	.291	.376	.385	+29.2	+2.4	+32.3
Gluers, folders, etc., hand	.270	.378	.387	+40.0	+2.4	+43.3
Clerical employees, office and plant	.427	.491	.503	+15.0	+2.4	+17.8
Miscellaneous other employees [1]	.344	.449	.468	+30.5	+4.2	+36.0
Total	.283	.389	.395	+37.5	+1.5	+39.6
Total, both sexes	.431	.539	.544	+25.1	+.9	+26.2
South						
Males:						
Compositors, hand and machine, and die makers	.577	.697	.695	+20.8	−.3	+20.5
Pressmen	.496	.624	.620	+25.8	−.6	+25.0
Press feeders	.311	.412	.405	+32.5	−1.7	+30.2
Strippers	.206	.360	.348	+74.8	−3.3	+68.9
Machine helpers	.213	.361	.346	+69.5	−4.2	+62.4
Bundlers and packers	.218	.362	.368	+66.1	+1.7	+68.8
Miscellaneous direct employees	.397	.517	.496	+30.2	−4.1	+24.9
Miscellaneous indirect employees	.353	.475	.472	+34.6	−.6	+33.7
Total	.338	.461	.444	+36.4	−3.7	+31.4
Females:						
Miscellaneous machine operators	.221	.319	.319	+44.3	----------	+44.3
Miscellaneous machine feeders	.234	.328	.343	+40.2	+4.6	+46.6
Miscellaneous direct employees	.182	.320	.308	+75.8	−3.8	+69.2
Miscellaneous indirect employees	.212	.340	.305	+60.4	−10.3	+43.9
Total	.214	.330	.316	+54.2	−4.2	+47.7
Total, both sexes	.307	.430	.415	+40.1	−3.5	+35.2

[1] Includes mostly indirect workers.

Among the males in the North, the average hourly earnings in May 1933 for the 17 individual occupations shown ranged from 35.1 cents for die makers' helpers to 68.4 cents for die makers. If the occupational groupings were included, the range would be from 33.5 cents for miscellaneous service workers to 75.4 cents for miscellaneous skilled indirect employees. The percentages of change between May 1933 and August 1934 extended from 13.2 for automatic gluing- and folding-machine operators to 36.8 for die makers' helpers. On the whole, the skilled occupations had the smallest relative increases, while the unskilled occupations showed the greatest relative gains; in the semiskilled group the trend varied, the percentage rises varying from 15.6 for automatic gluing- and folding-machine feeders to as high as 36.8 for die makers' helpers.[18] In August 1934 the average earnings per hour for the 17 individual occupations extended from 44.5 cents for automatic gluing- and folding-machine feeders to 80.6 cents for die makers, the range for all occupational classes being from 43.5 cents for miscellaneous service workers to 93.5 cents for office and plant supervisory employees. Between August 1934 and August 1935 only six individual occupations and occupational groupings showed slight decreases (the largest was 2 percent for semiskilled workers in the power and maintenance group), the remaining classes having increases from 0.2 percent for strippers, bundlers and packers, and laborers, to 9 percent for die makers' helpers. The highest and lowest average hourly earnings in August 1935 were for the same occupations and occupational groupings as in August 1934.

As for males in the South, the range in average hourly earnings in May 1933 was from 20.6 cents for strippers to 57.7 cents for compositors and die makers. The percentage increases between that period and August 1934 varied from 20.8 for the latter occupation to 74.8 for the former occupation, the lowest average earnings per hour in August 1934 being 36 cents for strippers and the highest 69.7 cents for hand and machine compositors and die makers. From August 1934 to 1935, during which time the code was abandoned, there was a reduction in average earnings per hour in all but 1 of the 8 occupational classes shown, the largest being 4.2 percent for machine helpers. Bundlers and packers had a slight gain of 1.7 percent. In August 1935 machine helpers showed the lowest (34.6 cents) and hand and machine compositors and die makers the highest (69.5 cents) average hourly earnings.

[18] The skilled occupations are hand and machine compositors, die makers, pressmen, pressmen and feeders, machine adjusters and repairmen, automatic gluing- and folding-machine operators, truck drivers, office and plant supervisory employees, office and plant clerical workers, skilled miscellaneous direct workers, skilled miscellaneous indirect workers, and skilled power and maintenance workers; the semiskilled occupations are press feeders, cutter feeders, automatic gluing- and folding-machine feeders, machine feeders-die makers' helpers, pressmen's helpers, semiskilled miscellaneous direct workers, semiskilled miscellaneous indirect workers, and semiskilled power and maintenance workers; the unskilled occupations are strippers, machine helpers, bundlers and packers, laborers, unskilled miscellaneous indirect workers, and miscellaneous service workers.

There are five identical occupations among males for which regional comparisons in average hourly earnings may be made. In May 1933 the differentials in favor of the North for these occupations were 15.4 cents for pressmen, 9 cents for press feeders, 15.8 cents for strippers, 14.1 cents for machine helpers, and 14.6 cents for bundlers and packers. The respective differentials in August 1935 amounted to 17.8, 10.1, 13.5, 10.7, and 12.4 cents, thus being higher for the first two and lower for the last three occupations. In every case the percentage gain in the South was greater than in the North, but it was especially so for strippers, machine helpers, and bundlers and packers, which explains the reduction in the differentials for these three jobs.

With the exception of the office and plant clerical workers and miscellaneous other employees, there was very little variation in average hourly earnings among the various occupational classes shown for females in the North during each of the three pay-roll periods. The range was from 24.5 cents for machine helpers to 29.4 cents for strippers in May 1933, from 36.7 cents for machine helpers to 38.2 cents for press feeders, strippers, and bundlers and packers in August 1934, and from 36.9 cents for machine helpers to 39.6 cents for stitcher operators in August 1935. The percentage gains between the first two periods varied from 15.0 for office and plant clerical employees to 49.8 for machine helpers; between the last two periods, only two occupations had slight reductions, the remaining showing increases, of which the highest was 4.5 percent for stitcher operators. In the South there was also very little difference between the average hourly earnings of the four occupational groupings shown. The largest percentage rise of any occupational class in table 6 between May 1933 and August 1934 was 75.8 for female miscellaneous direct employees in this region. The sharpest reduction, namely, 10.3 percent, between August 1934 and August 1935 was for female miscellaneous indirect employees.

There are six identical occupations in the North for which comparisons in average hourly earnings may be made by sex. In May 1933 the differentials favoring the males amounted to 12.7 cents for press feeders, 7 cents for strippers, 12.9 cents for automatic gluing- and folding-machine feeders, 10.9 cents for machine helpers, 8.6 cents for bundlers and packers, and 6.6 cents for machine feeders. The respective differentials for the same occupations in August 1935 were 12.2, 10.7, 5.6, 8.4, 11.1, and 8.1 cents. These differentials are interesting, especially as the code stipulated that females doing the same work as males should get the same pay.

Average Weekly Hours

Changes in Averages

THE decided increase in average hourly earnings from May 1933 to August 1934 was accompanied by an important decrease in average weekly hours, as may be seen in table 7. The average hours per week for all employees in the industry dropped from 44.8 to 37.5 during this period, a decline of 7.3 hours or 16.3 percent. The reduction extended to both sexes in each region, and in no instance did the August 1934 average exceed 38 hours, or 2 less than the maximum set by the code for most employees. The decreases, both absolute and relative, were substantially greater in the South than in the North. In the North the reduction was greater, both relatively and absolutely, for males (7.8 hours, or 17.1 percent) than for females (5.1 hours, or 12.3 percent). In the South, while both sexes had the same relative decrease (23.1 percent), the absolute drop was also greater for males (11.1 hours) than for females (9.9 hours).

Table 7.—Average Weekly Hours, by Region and Sex, in 3 Pay-Roll Periods

Region and sex	Average weekly hours			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
United States	44.8	37.5	39.7	−16.3	+5.9	−11.4
Males	45.9	37.9	40.3	−17.4	+6.3	−12.2
Females	41.6	36.2	37.5	−13.0	+3.6	−9.9
North	44.7	37.6	39.7	−15.9	+5.6	−11.2
Males	45.7	37.9	40.4	−17.1	+6.6	−11.6
Females	41.5	36.4	37.6	−12.3	+3.3	−9.4
South	46.6	35.9	38.7	−23.0	+7.8	−17.0
Males	48.0	36.9	39.5	−23.1	+7.0	−17.7
Females	42.9	33.0	36.2	−23.1	+9.7	−15.6

With the discontinuance of the code and the removal of the maximum-hour provisions, there was a gain in the average weekly hours. Thus, the average for the industry rose from 37.5 hours in August 1934 to 39.7 in August 1935, an advance of 2.2 hours or 5.9 percent. Increases are shown for each sex-region group. The females in the South had the greatest advance (3.2 hours or 9.7 percent), while the females in the North showed the smallest gain (1.2 hours or 3.3 percent). The males in each region had practically the same absolute as well as relative increases (about 2.5 hours or 7 percent) during this period.

Although higher than in August 1934, the average hours per week in August 1935 were still substantially lower than in May 1933. For the industry as a whole, the reduction amounted to 5.1 hours or 11.4 percent. The decreases were 5.3 hours (11.6 percent) for males in the North, 8.5 hours (17.7 percent) for males in the South, 3.9 hours

(9.4 percent) for females in the North, and 6.7 hours (15.6 percent) for females in the South.

In May 1933 the males in the South were employed a longer week than those in the North. Likewise, the females in the South worked a greater number of hours per week than did the females in the North. The opposite was true for each sex in August 1934 and 1935. In each of the three periods the males worked longer hours per week than the females in each region. However, the effect of the code was to level off these variations somewhat, as one may see from the averages for the last two periods.

Changes in Percentage Distributions of Employees

A more detailed picture of the changes in weekly hours between the three periods may be obtained from the percentage distributions of employees shown in table 8. In order fully to appreciate these changes, however, it is advisable to examine the code provisions relating to hours.

Table 8.—Percentage Distribution of Employees According to Weekly Hours, by Region and Sex, in 3 Pay-Roll Periods

Region, sex, and weekly hours	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
United States						
All employees:						
Under 16 hours	2.9	2.9	2.8	2.8	2.2	2.2
16 and under 24 hours	2.6	5.5	3.1	5.9	2.6	4.8
24 and under 32 hours	4.5	10.0	6.5	12.4	4.7	9.5
32 and under 40 hours	12.4	22.4	19.5	31.9	16.4	25.9
40 hours	5.9	28.3	53.2	85.1	42.1	68.0
Over 40 and under 48 hours	27.9	56.2	11.5	96.6	19.0	87.0
48 and under 56 hours	33.4	89.6	2.8	99.4	11.1	98.1
56 hours and over	10.4	100.0	.6	100.0	1.9	100.0
Total	100.0		100.0		100.0	
North						
Males:						
Under 16 hours	2.6	2.6	2.7	2.7	1.8	1.8
16 and under 24 hours	2.7	5.3	2.7	5.4	2.1	3.9
24 and under 32 hours	3.8	9.1	5.8	11.2	4.2	8.1
32 and under 40 hours	10.0	19.1	18.5	29.7	15.2	23.3
40 hours	6.3	25.4	52.0	81.7	40.7	64.0
Over 40 and under 48 hours	27.8	53.2	13.8	95.5	20.8	84.8
48 and under 56 hours	34.5	87.7	3.7	99.2	12.6	97.4
56 hours and over	12.3	100.0	.8	100.0	2.6	100.0
Total	100.0		100.0		100.0	
Females:						
Under 16 hours	3.4	3.4	2.8	2.8	3.4	3.4
16 and under 24 hours	3.1	6.5	3.6	6.4	4.3	7.7
24 and under 32 hours	5.7	12.2	8.3	14.7	5.6	13.3
32 and under 40 hours	18.7	30.9	20.8	35.5	17.6	30.9
40 hours	6.4	37.3	58.7	94.2	49.4	80.3
Over 40 and under 48 hours	33.2	70.5	5.4	99.6	13.8	94.1
48 and under 56 hours	27.8	98.3	.4	100.0	5.9	100.0
56 hours and over	1.7	100.0				
Total	100.0		100.0		100.0	

Table 8.—Percentage Distribution of Employees According to Weekly Hours, by Region and Sex, in 3 Pay-Roll Periods—Continued

Region, sex, and weekly hours	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
South						
Males:						
Under 16 hours	2.0	2.0	4.0	4.0	1.0	1.0
16 and under 24 hours	.8	2.8	3.7	7.7	2.4	3.4
24 and under 32 hours	7.9	10.7	5.3	13.0	4.5	7.9
32 and under 40 hours	12.2	22.9	25.5	38.5	26.3	34.2
40 hours	.8	23.7	48.8	87.3	35.2	69.4
Over 40 and under 48 hours	11.1	34.8	10.3	97.6	17.2	86.6
48 and under 56 hours	43.5	78.3	2.4	100.0	12.4	99.0
56 hours and over	21.7	100.0			1.0	100.0
Total	100.0		100.0		100.0	
Females:						
Under 16 hours	7.4	7.4	7.8	7.8	5.4	5.4
16 and under 24 hours		7.4	9.4	17.2	5.4	10.8
24 and under 32 hours	5.3	12.7	14.8	32.0	11.6	22.4
32 and under 40 hours	24.5	37.2	25.0	57.0	17.8	40.2
40 hours	1.1	38.3	43.0	100.0	36.5	76.7
Over 40 and under 48 hours	17.0	55.3			16.3	93.0
48 and under 56 hours	34.1	89.4			7.0	100.0
56 hours and over	10.6	100.0				
Total	100.0		100.0		100.0	

The code [19] had very definite provisions concerning maximum hours of work in the industry. Under it, laborers, mechanical workers, or artisans, who constitute most of the plant employees, were not to work more than 8 hours per day or 40 hours per week. There were two exceptions to this general rule: (1) Up to 10 percent of the labor force might be utilized in machine and plant cleaning and maintenance over and above those hours, whenever this work could not be done while the machines were in operation, provided that all time in excess of 10 hours per day and 48 hours per week should be paid for at least at time and one-third; and (2) additional time up to 8 hours per week could be allowed for plant operation, with time and one-third to be paid for such extra time. In addition to the above, there were special provisions pertaining to certain groups of employees. Thus, watchmen were permitted to work 56 hours per week; chauffeurs and truckmen 192 hours in 4 consecutive weeks; [20] engineers, firemen, and elec-

[19] The substitute provisions relating to hours in the President's Reemployment Agreement were as follows:

Employees (other than factory or mechanical workers or artisans and truck drivers) shall not be employed for more than 40 hours per week; *Provided, however,* That in the case of truck drivers they may be employed for not more than a 40-hour week averaged over a 2 months' period; *and provided further,* that such employees may be employed for not more than 48 hours per week, and the hours worked over 40 hours per week shall be considered overtime.

No factory or mechanical worker or artisan (except engineers, watchmen, and firemen) shall be employed for more than a 40-hour week, averaged over a 13-week period: *Provided, however,* That such employees may be employed not more than a maximum of 48 hours per week, and hours worked over 40 per week shall be considered overtime; *and provided further,* that these employees may be employed extra in cleaning and maintenance of plant and/or equipment not in operation, which work cannot be performed during regular working hours; but all work in excess of 40 hours per week shall be considered overtime. No engineer, watchmen, or firemen shall be employed more than a maximum week of 42 hours.

[20] Time and one-third was to be paid for all hours in excess of 9 per day and 48 per week.

icians 168 hours in 4 consecutive weeks,[20] and all other employees n average of 40 hours in 13 consecutive weeks but not more than 48 ours per week.[21] The code also contained the usual exemption overing emergency repairs or maintenance work.

Taking the industry as a whole, the effect of the above provisions pon the distribution of workers by weekly hours between May 1933 nd August 1934 was to reduce the percentage employed over 40 hours nd to bring about a concentration of the workers in the class of xactly 40 hours. Thus, the percentage of employees working over 0 hours dropped from 71.7 to 14.9. Under the code the long hours orked prior thereto were practically eliminated. Only 2.8 percent f the employees worked 48 and under 56 hours in August 1934, as ompared with 33.4 in May 1933, and only 0.6 percent were employed 6 hours and over in August 1934, as compared with 10.4 percent in May 1933. During the same interval, the percentage working over 0 and under 48 hours dropped from 27.9 to 11.5. Not all of the employees working more than 40 hours per week in August 1934, however, can be said to have worked in excess of code hours, owing o the numerous exceptions found in the code. On the other hand, the workers employed exactly 40 hours soared from 5.9 percent in May 1933 to 53.2 percent in August 1934. There was likewise an increase in the percentage working 32 and under 40 hours from 12.4 in the former to 19.5 in the latter period. Those employed under 32 hours, nearly all of whom were undoubtedly part-time workers, increased slightly, from 10.0 percent in May 1933 to 12.4 percent in August 1934.

With the lifting of the limitations of maximum hours after the code, however, there was a decrease in the relative number of employees working 40 hours or less per week, which was accompanied by an increase in the percentage of those employed over 40 hours. Between August 1934 and 1935, the workers with a week of exactly 40 hours dropped from 53.2 to 42.1 percent. Similarly, there were reductions in the lower classes, namely, from 19.5 to 16.4 percent in the 32 and under 40 hours class and from 12.4 to 9.5 percent in the class of under 32 hours. In contrast, the percentages increased from 11.5 to 19.0 in the class of over 40 and under 48, from 2.8 to 11.1 in the class of 48 and under 56, and from 0.6 to 1.9 in the class of 56 hours and over.

A similar story is told by each of the percentage distributions of employees in the various sex-region groups, the sole difference being in the sharpness of the changes.

Among males in the North, the employees working 40 hours and under per week were 25.4 percent in May 1933, 81.7 percent in August

[20] Time and one-third was to be paid for all hours in excess of 9 per day and 48 per peek.

[21] There was no limitation placed on the hours of executives, their secretaries, outside salesmen, and supervisory employees receiving $35 or more per week. Nearly all these persons, however, were excluded from this survey.

1934, and 64.0 percent in August 1935. The respective percentages working exactly 40 hours were 6.3, 52.0, and 40.7. Those employed over 40 and under 56 hours were 62.3 percent in May 1933, 17.5 percent in August 1934, and 33.4 percent in August 1935. The percentage working 56 hours and over was 12.3 in 1933, as contrasted with 0.8 in 1934 and 2.6 in 1935.

In the South the number of males employed a week of 40 hours or less amounted to 23.7 percent in May 1933, 87.3 percent in August 1934, and 69.4 percent in August 1935. The percentages working exactly the code maximum were 0.8 in 1933, 48.8 in 1934, and 35.2 in 1935. Those employed over 40 and under 56 hours amounted to 54.6 percent in May 1933, 12.7 percent in August 1934, and 29.6 percent in August 1935. Whereas there were 21.7 percent working 56 hours and over during the first period, there were none during the second and only 1.0 percent during the last period.

As for females in the North, the percentage who had a week of 40 hours and under amounted to 37.3 in May 1933, 94.2 in August 1934, and 80.3 in August 1935, with 6.4, 58.7, and 49.4 percent respectively working exactly 40 hours. Those employed over 40 and under 48 hours amounted to 33.2 percent in May 1933, only 5.4 percent in August 1934, and 13.8 percent in August 1935. There were as many as 29.5 percent employed a week of 48 hours and over in 1933, as against 0.4 percent in 1934 and 5.9 percent in 1935.

Of the small number of female workers found in the South, the percentage employed a week of 40 hours and under was 38.3 in May 1933, 100 in August 1934, and 76.7 in August 1935. Those working exactly 40 hours increased from 1.1 percent in 1933 to 43.0 percent in 1934, dropping to 36.5 percent in 1935. It is significant that more than one-half of the employees had a week of less than 40 hours in August 1934, while none worked more than the maximum in the code, which may be compared with 61.7 percent employed over 40 hours in May 1933. However, in August 1935, or after the code, there were again 23.3 percent working a week of over 40 hours.

Changes by Occupational Classes

The average weekly hours by individual occupations and occupational groupings are shown in table 9.

Table 9.—Average Weekly Hours, by Region, Sex, and Occupational Class, in 3 Pay-Roll Periods

Region, sex, and occupational class	Average weekly hours			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
North						
Males:						
Compositors, hand and machine	44.4	39.5	40.9	−11.0	+3.5	−7.9
Die makers	46.0	39.7	41.7	−13.7	+5.0	−9.3
Pressmen	45.2	38.0	40.6	−15.9	+6.8	−10.2
Press feeders	44.7	37.1	40.0	−17.0	+7.8	−10.5
Pressmen and feeders	45.1	38.5	39.8	−14.6	+3.4	−11.8
Machine adjusters and repairmen	49.6	40.9	42.5	−17.5	+3.9	−14.3
Cutter feeders	45.7	38.7	39.5	−15.3	+2.1	−13.6
Strippers	43.5	35.6	38.6	−18.2	+8.4	−11.3
Automatic gluing- and folding-machine operators	45.3	39.4	41.5	−13.0	+5.3	−8.4
Automatic gluing- and folding-machine feeders	44.8	38.2	39.8	−14.7	+4.2	−11.2
Machine helpers	45.6	36.1	39.5	−20.8	+9.4	−13.4
Bundlers and packers	44.6	36.3	39.5	−18.6	+8.8	−11.4
Laborers (loaders, unloaders, etc.)	44.7	37.8	39.1	−15.4	+3.4	−12.5
Machine feeders	42.4	36.8	37.2	−13.2	+1.1	−12.3
Truck drivers	48.4	42.6	45.6	−12.0	+7.0	−5.8
Die makers' helpers	45.6	38.4	41.5	−15.8	+8.1	−9.0
Pressmen's helpers	46.8	38.7	40.9	−17.3	+5.7	−12.6
Supervisory employees, office and plant	47.8	40.8	42.2	−14.6	+3.4	−11.7
Clerical employees, office and plant	48.0	40.5	42.1	−15.6	+4.0	−12.3
Miscellaneous direct workers, skilled	47.5	38.9	39.7	−18.1	+2.1	−16.4
Miscellaneous direct workers, semiskilled	38.5	35.1	36.3	−8.8	+3.4	−5.7
Miscellaneous indirect workers, skilled	47.5	40.6	45.3	−14.5	+11.6.	−4.6
Miscellaneous indirect workers, semiskilled	46.6	38.4	41.8	−17.6	+8.9	−10.3
Miscellaneous indirect workers, unskilled	46.2	38.3	41.2	−17.1	+7.6	−10.8
Power and maintenance workers, skilled	51.0	41.7	44.0	−18.2	+5.5	−13.7
Power and maintenance workers, semiskilled	50.5	41.5	43.4	−17.8	+4.6	−14.1
Service workers, miscellaneous	55.4	42.3	44.0	−23.6	+4.0	−20.6
Total	45.7	37.9	40.4	−17.1	+6.6	−11.6
Females:						
Press feeders	40.9	35.6	37.9	−13.0	+6.5	−7.3
Strippers	37.9	36.3	36.7	−4.2	+1.1	−3.2
Automatic gluing- and folding-machine feeders	42.7	37.5	38.5	−12.2	+2.7	−9.8
Stitcher operators	41.5	35.8	37.0	−13.7	+3.4	−10.8
Machine helpers	43.7	35.3	37.4	−19.2	+5.9	−14.4
Bundlers and packers	39.1	37.0	39.5	−5.4	+6.8	+1.0
Machine feeders	40.5	34.4	37.7	−15.1	+9.6	−6.9
Gluers, folders, etc., hand	39.6	36.1	35.7	−8.8	−1.1	−9.8
Clerical employees, office and plant	44.4	39.5	40.0	−11.0	+1.3	−9.9
Miscellaneous other employees [1]	42.5	38.2	36.2	−10.1	−5.2	−14.8
Total	41.5	36.4	37.6	−12.3	+3.3	−9.4
South						
Males:						
Compositors, hand and machine, and die makers	45.6	39.7	42.9	−12.9	+8.1	−5.9
Pressmen	46.8	37.9	37.0	−19.0	−2.4	−20.9
Press feeders	47.6	38.0	38.6	−20.2	+1.6	−18.9
Strippers	48.7	35.0	39.0	−28.1	+11.4	−19.9
Machine helpers	50.1	34.9	38.6	−30.3	+10.6	−23.0
Bundlers and packers	49.7	36.1	39.0	−27.4	+8.0	−21.5
Miscellaneous direct employees	47.9	37.5	40.5	−21.7	+8.0	−15.4
Miscellaneous indirect employees	48.4	36.9	42.0	−23.8	+13.8	−13.2
Total	48.0	36.9	39.5	−23.1	+7.0	−17.7
Females:						
Miscellaneous machine operators	48.1	32.4	35.6	−32.6	+9.9	−26.0
Miscellaneous machine feeders	44.2	31.5	37.6	−28.7	+19.4	−14.9
Miscellaneous direct employees	42.0	29.6	33.1	−29.5	+11.8	−21.2
Miscellaneous indirect employees	40.5	36.1	37.2	−10.9	+3.0	−8.1
Total	42.9	33.0	36.2	−23.1	+9.7	−15.6

[1] Includes mostly indirect workers.

In all of the 27 occupational classes shown for male workers in the North, substantial decreases in average weekly hours took place between May 1933 and August 1934. In the 17 individual occupa-

tions, truck drivers had the smallest relative decline (12.0 percent) and hand and machine compositors the smallest absolute reduction (4.9 hours), while machine helpers showed the greatest relative decrease (20.8 percent) and machine helpers the greatest absolute drop (9.5 hours). Both the absolute and relative reductions in the 10 occupational groupings were smallest for the semiskilled miscellaneous direct workers (3.4 hours and 8.8 percent) and largest for the miscellaneous service workers (13.1 hours and 23.6 percent). Whereas in May 1933, out of the 27 occupational classes all but 1 showed averages in excess of 40 and 3 in excess of 50, in August 1934 only 8 occupational classes had averages greater than 40, and most of these were excepted from the 40-hour maximum under the code. Thus, while the average of truck drivers in August 1934 was 42.6 hours, it was still considerably under the code maximum of 48 hours for chauffeurs and truckmen. Likewise, the average of 42.3 hours for miscellaneous service workers was still well within the code limit, as watchmen, who make up most of this group, were allowed to work as high as 56 hours under the code. Similarly, power and maintenance workers, whose average weekly hours decreased from over 50 in May 1933 to less than 42 in August 1934, were as a group also observing the code, as they were permitted to work a week of 42 hours.

As a result of the discontinuance of the code, the average hours per week increased in each of the occupational classes for males in the North between August 1934 and 1935. The gains ranged from 0.4 hour or 1.1 percent for machine feeders to 4.7 hours or 11.6 percent for skilled miscellaneous indirect workers. In that period 17 out of the 27 occupational classes had averages in excess of 40 per week, the highest being 45.6 for truck drivers.

Every one of the eight occupational classes for males in the South was employed over 45 hours per week in May 1933, but in August 1934 the highest worked by any one of these classes was slightly under 40. This was due to decreases between the two periods, varying from 5.9 hours or 12.9 percent for compositors and die makers to 15.2 hours or 30.3 percent for machine helpers. From August 1934 to 1935, however, all but one of the occupational classes showed gains, which ranged from 0.6 hour or 1.6 percent for press feeders to 5.1 hours or 13.8 percent for miscellaneous indirect employees. At the same time, the average for pressmen declined 0.9 hour or 2.4 percent. In August 1935 three of the occupational classes had an average in excess of 40, the highest being 42.9 hours for hand and machine compositors and die makers.

Each of the five identical occupations among males for which regional comparisons may be made, namely pressmen, press feeders, strippers, machine helpers, and bundlers and packers, worked longer hours in the South than in the North during May 1933. However, the

opposite was generally true in August 1935, due to the greater relative reductions shown in the South as compared with the North for the entire period.

The decreases in average weekly hours between May 1933 and August 1934 in the 10 occupational classes for females in the North extended from 1.6 hours or 4.2 percent for strippers to 8.4 hours or 19.2 percent for machine helpers. In May 1933, 7 of these classes had hours in excess of 40, but in August 1934, all of them averaged less than that figure. The discontinuance of the code resulted in rises between August 1934 and 1935 in all but two of the occupational classes, ranging from 0.4 hour or 1.1 percent for strippers to 3.3 hours or 9.6 percent for machine feeders. In fact, in one of the occupations, bundlers and packers, the average in August 1935 exceeded slightly the one in May 1933. The decreases from 1934 to 1935 were 0.4 hour or 1.1 percent for hand gluers, folders, etc., and 2.0 hours or 5.2 percent for miscellaneous other employees. In August 1935 none of the averages in the occupational classes were over 40 hours per week.

In the six identical occupations in the North for which comparisons are possible by sex, namely, press feeders, strippers, automatic gluing- and folding-machine feeders, machine helpers, bundlers and packers, and machine feeders, the averages for males exceeded respectively those for females in May 1933. The same was still generally true in August 1935, in spite of the fact that the males in nearly all cases had greater relative decreases than the females for the period as a whole.

In May 1933 the averages covering the four occupational groupings of females in the South varied from 40.5 hours per week for miscellaneous indirect employees to 48.1 for miscellaneous machine operators. By August 1934, however, their averages declined from 4.4 hours or 10.9 percent for miscellaneous indirect employees to 15.7 hours or 32.6 percent for miscellaneous machine operators, so that the range in the averages was from 29.6 hours for miscellaneous direct employees to 36.1 for miscellaneous indirect employees. All of the occupational groupings showed a rise between August 1934 and 1935, extending from 1.1 hours or 3 percent for miscellaneous indirect employees to 6.1 hours or 19.4 percent for miscellaneous machine feeders. Yet, in August 1935, all of the averages were still below 38 hours.

Average Weekly Earnings

Changes in Averages

As ALREADY stated, between May 1933 and August 1934 the relatively sizable gain in average hourly earnings was accompanied by a drop in average weekly hours. As a result, the average weekly earnings of employees in the entire industry increased only slightly, that

is from $18.88 to $19.96, which was a rise of $1.08 or 5.7 percent. From August 1934 to 1935, the average earnings per week again advanced, but for a different reason. During this period the increase in hours worked per week was largely responsible for the rise, as the average earnings per hour practically remained at a standstill. The gain was from $19.96 to $21.24, an advance of $1.28 or 6.4 percent. The rise for the entire period under consideration amounted to $2.3 or 12.5 percent. These changes are shown in table 10.

Table 10.—Average Weekly Earnings, by Region and Sex, in 3 Pay-Roll Periods

Region and sex	Average weekly earnings			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
United States	$18.88	$19.96	$21.24	+5.7	+6.4	+12
Males	21.37	21.83	23.25	+2.2	+6.5	+8
Females	11.54	13.95	14.62	+20.8	+4.8	+26
North	19.26	20.28	21.63	+5.3	+6.7	+12
Males	21.78	22.16	23.68	+1.7	+6.9	+8
Females	11.76	14.19	14.86	+20.7	+4.7	+26
South	14.33	15.47	16.08	+8.0	+3.9	+12
Males	16.24	17.02	17.52	+4.8	+2.9	+7
Females	9.21	10.90	11.44	+18.3	+5.0	+24

The increase in the industry figure between May 1933 and August 1934 was largely due to the fact that the average weekly earnings of females rose $2.41 or 20.8 percent. This compares with a gain of only $0.46 or 2.2 percent for males. The decided gain in the average of females was the result of a smaller relative decrease in their average weekly hours and a greater relative increase in their average hourly earnings. Thus, the average hours per week of females dropped 13.0 percent, as against a reduction of 17.4 percent for males, while the average earnings per hour of the former increased 38.8 percent, as compared with an advance of 23.6 percent for the latter. As regards regional comparisons, the gains for male workers in the South were higher than those of male workers in the North, but the earnings of female employees in the North advanced more than did those of female employees in the South.

The increase in the industry average between August 1934 and 1935 was for the most part due to the rise in the average weekly earnings of males in the North, which amounted to $1.52 or 6.9 percent. With respect to regional comparisons by sex, the males in the North made larger gains than those in the South, and the females in the North showed a slightly higher increase than those in the South.

If the entire period from May 1933 to August 1935 is considered, the total increases amounted to $1.90 or 8.7 percent for males and

$3.10 or 26.4 percent for females in the North and to $1.28 or 7.9 percent for males and $2.23 or 24.2 percent for females in the South.

The tendency of the above changes was to increase the regional but to decrease the sex differentials between May 1933 and August 1935. Thus, for males the average weekly earnings in the North exceeded those in the South by $6.16 in 1935, as against $5.54 in 1933; likewise, the females in the North received on an average in 1935 $3.42 more than females in the South, as against $2.55 in 1933. In the North the differential in favor of the males as compared with the females dropped from $10.02 in 1933 to $8.82 in 1935, while in the South the reduction in this differential was from $7.03 in 1933 to $6.08 in 1935.

Changes in Percentage Distributions of Employees

Although not so pronounced as in the case of average hourly earnings, the shift of employees from lower to higher average weekly earnings was nevertheless important. This is clearly shown in Table 11, which presents the distributions of employees by earnings per week for each of the three periods.

Between May 1933 and August 1934, the relative number of employees in the industry as a whole declined in each of the wage classes under $12 and increased in each class from $12 up to $28. As a result, the percentage of those earning less than $12 dropped from 25.8 to 10.7, and the percentage receiving $12 and under $28 advanced from 57.5 to 73.8. In the classes paid $28 and over, the trend varied, resulting in a slight decrease from 16.7 to 15.5 percent.

The decrease in the relative number of workers in the lower wage classes continued even after the code. In each of the wage classes under $16, the percentages in August 1935 were smaller than in the same month in 1934. Actually, 27.2 percent of the employees earned less than $16 per week in August 1935, as compared with 34.0 percent in August 1934 and 45.8 percent in May 1933. The greatest reduction between August 1934 and 1935 took place in the wage class $12 and under $16. On the other hand, every class of $16 and over showed an increase, there being a total of 72.8 percent earning that much in 1935 as against 66.0 percent in 1934.

In the North the percentage of males earning less than $16 per week, the full-time minimum under the code, dropped from 29.0 in May 1933 to 17.0 in August 1934. In the latter period, an important concentration took place at the code level, 10.7 percent earning exactly $16 in August 1934, as compared with only 0.3 percent in May 1933. The relative number earning over $16 increased only slightly between the two periods. As a result of the decreases in each of the classes under $16 and the shifting of workers to higher wage classes, 87.9 percent earned $16 or more per week in August 1935, whereas 83.0 per-

cent in August 1934 and 71.0 percent in May 1933 received that amount or more.

The minimum full-time weekly earnings for male workers in the South under the code were $14. The percentage earning less than that figure per week declined from 47.7 in May 1933 to 28.6 in August 1934. This sharp decrease was largely the result of reductions in the relative number of workers in the wage classes of $4 and under $8 and $8 and under $12. There was also a decided concentration of employees at the code level, 15.1 percent being paid exactly $14 in 1934, as compared with only 0.4 percent in 1933. The relative number of workers receiving over $14 per week did not increase materially between May 1933 and August 1934. Whereas a slightly higher percentage earned $14 or more in August 1935 than in 1934, a decidedly varied trend obtained in 1935.

With a $14 code minimum full-time weekly rate also for females in the North, the percentage earning less than that amount declined sharply, from 78.4 in May 1933 to 32.0 in August 1934. At the same time, the percentage receiving exactly $14 increased decidedly, 21.2 percent earning that amount in 1934, as compared with only 0.3 in 1933. An important concentration also occurred in the over $14 and under $16 class, 25.7 percent being found here in August 1934, as compared with 9.8 percent in May 1933. Likewise, the percentage receiving $16 and under $20 increased from 7.0 in 1933 to 15.7 in 1934. The relative number earning $20 and over rose only slightly between the two periods. The percentage paid $14 or over further increased from 68.0 in August 1934 to 72.0 in August 1935, having been only 21.6 in May 1933. The greatest shift of workers between August 1934 and 1935 was from the $14 and under $16 class to the $16 and under $20 class.

Table 11.—Percentage Distribution of Employees According to Weekly Earnings, by Region and Sex, in 3 Pay-Roll Periods

Region, sex, and weekly earnings	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
United States						
All employees, earning—						
Under $4	1.9	1.9	1.4	1.4	1.2	1.2
$4 and under $8	6.4	8.3	2.6	4.0	2.4	3.6
$8 and under $12	17.5	25.8	6.7	10.7	4.9	8.5
$12 and under $16	20.0	45.8	23.3	34.0	18.7	27.2
$16 and under $20	16.3	62.1	26.8	60.8	27.5	54.7
$20 and under $24	12.8	74.9	14.8	75.6	16.7	71.4
$24 and under $28	8.4	83.3	8.9	84.5	10.2	81.6
$28 and under $32	5.8	89.1	4.5	89.0	5.7	87.3
$32 and under $36	4.2	93.3	4.6	93.6	4.7	92.0
$36 and under $40	2.3	95.6	2.1	95.7	2.5	94.5
$40 and under $44	2.2	97.8	1.7	97.4	2.1	96.6
$44 and under $48	.9	98.7	1.1	98.5	1.3	97.9
$48 and over	1.3	100.0	1.5	100.0	2.1	100.0
Total	100.0		100.0		100.0	

Table 11.—Percentage Distribution of Employees According to Weekly Earnings, by Region and Sex, in 3 Pay-Roll Periods—Continued

Region, sex, and weekly earnings	May 1933		August 1934		August 1935	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
North						
Males earning—						
Under $4	1.2	1.2	1.2	1.2	0.9	0.9
$4 and under $8	3.8	5.0	2.1	3.3	1.5	2.4
$8 and under $12	8.6	13.6	3.9	7.2	2.8	5.2
$12 and under $16	15.4	29.0	9.8	17.0	6.9	12.1
$16	.3	29.3	10.7	27.7	6.9	19.0
Over $16 and under $20	19.6	48.9	20.6	48.3	22.1	41.1
$20 and under $24	16.9	65.8	19.4	67.7	21.0	62.1
$24 and under $28	11.2	77.0	11.3	79.0	13.2	75.3
$28 and under $32	8.0	85.0	6.0	85.0	7.6	82.9
$32 and under $36	5.8	90.8	6.1	91.1	6.1	89.0
$36 and under $40	3.2	94.0	2.9	94.0	3.4	92.4
$40 and under $44	2.9	96.9	2.3	96.3	2.9	95.3
$44 and under $48	1.3	98.2	1.6	97.9	1.8	97.1
$48 and over	1.8	100.0	2.1	100.0	2.9	100.0
Total	100.0		100.0		100.0	
Females earning—						
Under $4	3.5	3.5	1.6	1.6	2.0	2.0
$4 and under $8	9.7	13.2	3.3	4.9	4.7	6.7
$8 and under $12	41.9	55.1	13.5	18.4	9.5	16.2
$12 and under $14	23.3	78.4	13.6	32.0	11.8	28.0
$14	.3	78.7	21.2	53.2	17.3	45.3
Over $14 and under $16	9.8	88.5	25.7	78.9	19.9	65.2
$16 and under $20	7.0	95.5	15.7	94.6	25.4	90 6
$20 and under $24	2.5	98.0	2.5	97.1	6.6	97.2
$24 and under $28	1.0	99.0	1.5	98.6	1.5	98.7
$28 and under $32	.5	99.5	.6	99.2	.5	99.2
$32 and under $36	.2	99.7	.5	99.7	.6	99.8
$36 and under $40		99.7	.1	99.8		99.8
$40 and under $44	.2	99.9	.1	99.9	.1	99.9
$44 and under $48		99.9		99.9		99.9
$48 and over	.1	100.0	.1	100.0	.1	100.0
Total	100.0		100.0		100.0	
South						
Males earning—						
Under $4	2.4	2.4	2.1	2.1	1.0	1.0
$4 and under $8	15.0	17.4	4.8	6.9	1.4	2.4
$8 and under $12	20.8	38.2	6.6	13.5	10.3	12.7
$12 and under $14	9.5	47.7	15.1	28.6	12.4	25.1
$14	.4	48.1	15.1	43.7	13.7	38.8
Over $14 and under $16	10.7	58.8	14.1	57.8	16.5	55.3
$16 and under $20	13.8	72.6	17.3	75.1	21.1	76.4
$20 and under $24	9.1	81.7	8.5	83.6	6.7	83.1
$24 and under $28	7.5	89.2	8.2	91.8	8.1	91.2
$28 and under $32	4.0	93.2	2.1	93.9	2.9	94.1
$32 and under $36	3.2	96.4	2.9	96.8	2.6	96.7
$36 and under $40	.8	97.2	1.3	98.1	1.4	98.1
$40 and under $44	2.0	99.2	1.1	99.2	1.0	99.1
$44 and under $48		99.2	.5	99.7	.7	99.8
$48 and over	.8	100.0	.3	100.0	.2	100.0
Total	100.0		100.0		100.0	
Females earning—						
Under $4	7.4	7.4	6.3	6.3	5.4	5.4
$4 and under $8	34.1	41.5	7.0	13.3	13.2	18.6
$8 and under $12	34.1	75.6	37.5	50.8	17.8	36.4
$12		75.6	9.4	60.2	16.3	52.7
Over $12 and under $16	17.0	92.6	32.0	92.2	38.8	91.5
$16 and under $20	7.4	100.0	7.0	99.2	8.5	100.0
$20 and under $24			.8	100.0		
Total	100.0		100.0		100.0	

Female employees in the South had the lowest minimum full-time weekly rate under the code, namely $12. Between May 1933 and August 1934, the percentage earning less than this minimum declined from 75.6 to 50.8. In 1934, there were 9.4 percent receiving exactly $12, whereas in 1933 no workers were found in that particular class. During the same period, there was also a decided rise in the percentage earning over $12 and under $16—from 17.0 in May 1933 to 32.0 in August 1934. There was, however, only a slight rise in the relative number paid $16 and over between the two periods. The principal changes from August 1934 to 1935 were a sharp decline in the wage class $8 and under $12 (from 37.5 to 17.8 percent) and an important increase in the $12 and under $16 class (from 41.4 to 55.1 percent).

Changes by Occupational Classes

Table 12 presents the average weekly earnings by individual occupations and occupational groupings.

Table 12.—Average Weekly Earnings by Region, Sex, and Occupational Class, in 3 Pay-Roll Periods

Region, sex, and occupational class	Average weekly earnings			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
North						
Males:						
Compositors, hand and machine	$28.42	$30.42	$32.28	+7.0	+6.1	+13.6
Die makers	31.48	32.05	33.98	+1.8	+6.0	+7.9
Pressmen	29.38	29.98	32.38	+2.0	+8.0	+10.2
Pressfeeders	17.92	18.69	20.25	+4.3	+8.3	+13.0
Pressmen and feeders	22.98	23.82	24.76	+3.7	+3.9	+7.7
Machine adjusters and repairmen	30.96	29.22	31.15	−5.6	+6.6	+.6
Cutter feeders	20.31	21.32	21.70	+5.0	+1.8	+6.8
Strippers	15.84	17.14	18.65	+8.2	+8.8	+17.7
Automatic gluing- and folding-machine operators	24.40	24.01	25.63	−1.6	+6.7	+5.0
Automatic gluing- and folding-machine feeders	17.22	16.99	17.60	−1.3	+3.6	+2.2
Machine helpers	16.17	16.18	17.89	+.1	+10.6	+10.6
Bundlers and packers	16.24	17.83	19.38	+9.8	+8.7	+19.3
Laborers (loaders, unloaders, etc.)	16.10	17.09	17.72	+6.1	+3.7	+10.1
Machine feeders	15.15	16.94	17.32	+11.8	+2.2	+14.3
Truck drivers	22.54	22.87	24.30	+1.5	+6.3	+7.8
Die makers' helpers	15.98	18.47	21.68	+15.6	+17.4	+35.7
Pressmen's helpers	19.52	20.51	22.66	+5.1	+10.5	+16.1
Supervisory employees, office and plant	35.91	38.20	39.32	+6.4	+2.9	+9.5
Clerical employees, office and plant	23.30	23.74	24.88	+1.9	+4.8	+6.8
Miscellaneous direct workers, skilled	27.77	27.19	28.00	−2.1	+3.0	+.8
Miscellaneous direct workers, semiskilled	13.49	16.57	17.61	+22.8	+6.3	+30.5
Miscellaneous indirect workers, skilled	35.81	37.77	41.57	+5.5	+10.1	+16.1
Miscellaneous indirect workers, semiskilled	20.45	19.99	22.84	−2.2	+14.3	+11.7
Miscellaneous indirect workers, unskilled	16.96	17.87	19.83	+5.4	+11.0	+16.9
Power and maintenance workers, skilled	30.71	30.24	32.02	−1.5	+5.9	+4.3
Power and maintenance workers, semiskilled	22.04	21.14	21.65	−4.1	+2.4	−1.8
Service workers, miscellaneous	18.56	18.36	19.36	−1.1	+5.4	+4.3
Females:						
Pressfeeders	11.23	13.59	14.53	+21.0	+6.9	+29.4
Strippers	11.11	13.87	13.81	+24.8	−.4	+24.3
Automatic gluing- and folding-machine feeders	10.92	13.86	14.87	+26.9	+7.3	+36.2
Stitcher operators	11.34	13.57	14.63	+19.7	+7.8	+29.0
Machine helpers	10.70	12.94	13.79	+20.9	+6.6	+28.9
Bundlers and packers	10.86	14.13	15.04	+30.1	+6.4	+38.5
Machine feeders	11.75	12.93	14.53	+10.0	+12.4	+23.7
Gluers, folders, etc., hand	10.69	13.62	13.80	+27.4	+1.3	+29.1
Clerical employees, office and plant	18.96	19.40	20.10	+2.3	+3.6	+6.0
Miscellaneous other employees [1]	14.61	17.17	16.93	+17.5	−1.4	+15.9

[1] Includes mostly indirect workers.

Table 12.—Average Weekly Earnings, by Region, Sex, and Occupational Class, in 3 Pay-Roll Periods—Continued

Region, sex, and occupational class	Average weekly earnings			Percent of change		
	May 1933	August 1934	August 1935	May 1933 to August 1934	August 1934 to August 1935	May 1933 to August 1935
South						
Males:						
Compositors, hand and machine, and die makers	$26.30	$27.68	$29.85	+5.2	+7.8	+13.5
Pressmen	23.21	23.68	22.92	+2.0	−3.2	−1.2
Pressfeeders	14.84	15.65	15.64	+5.5	−.1	+5.4
Strippers	10.05	12.61	13.56	+25.5	+7.5	+34.9
Machine helpers	10.65	12.59	13.34	+18.2	+6.0	+25.3
Bundlers and packers	10.82	13.07	14.35	+20.8	+9.8	+32.6
Miscellaneous direct employees	19.04	19.40	20.09	+1.9	+3.6	+5.5
Miscellaneous indirect employees	17.07	17.53	19.82	+2.7	+13.1	+16.1
Females:						
Miscellaneous machine operators	10.63	10.31	11.35	−3.0	+10.1	+6.8
Miscellaneous machine feeders	10.34	10.34	12.88	.....	+24.6	+24.6
Miscellaneous direct employees	7.64	9.49	10.19	+24.2	+7.4	+33.4
Miscellaneous indirect employees	8.59	12.29	11.33	+43.1	−7.8	+31.9

Between May 1933 and August 1934, the average earnings per week increased in 19 and decreased in 8 of the 27 occupational classes shown for males in the North. The gains ranged from 1 cent for machine helpers to $3.08 or 22.8 percent for semiskilled miscellaneous direct workers. The reductions, on the other hand, varied from 20 cents or 1.1 percent for miscellaneous service workers to $1.74 or 5.6 percent for machine adjusters and repairmen. Most of these decreases were for skilled or semiskilled occupational classes, but the average weekly earnings in each case were well above the highest minimum full-time weekly rate ($16) provided under the code. The average earnings per week in all of the occupational classes were higher in August 1935 than in August 1934. Cutter feeders had the smallest relative increase, 1.8 percent, and machine feeders the smallest absolute increase, 38 cents, while die makers' helpers had the highest relative increase, 17.4 percent, and skilled miscellaneous indirect workers the greatest absolute gain, $3.80. Whereas in May 1933, the range in average weekly earnings was from $13.49 for semiskilled miscellaneous direct workers to $35.91 for office and plant supervisory employees, in August 1935 it was from $17.32 for machine feeders to $41.57 for skilled miscellaneous indirect workers.

In all of the eight occupational classes shown for male workers in the South, the average weekly earnings were higher in August 1934 than in May 1933. Miscellaneous indirect employees had the smallest absolute gain, 46 cents, and pressmen the smallest relative gain, 2 percent, while strippers had the largest absolute and relative increases, $2.56 or 25.5 percent. The increases were greatest in the lower-paid occupational classes, such as strippers, machine helpers, and bundlers and packers. Between August 1934 and 1935,

the average earnings per week advanced in six of the eight occupational classes, the smallest increase, 69 cents or 3.6 percent, being for miscellaneous direct employees, and the largest, $2.29 or 13.1 percent, for miscellaneous indirect employees. During the same period, the average of press feeders declined 1 cent and that of pressmen 76 cents or 3.2 percent. In August 1935 the average weekly earnings varied from $13.34 for machine helpers to $29.85 for hand and machine compositors and die makers, as compared with a range from $10.05 for strippers to $26.30 for hand and machine compositors and die makers in May 1933.

The average weekly earnings increased between May 1933 and August 1934 in all of the 10 occupational classes presented for female workers in the North. The smallest gain, 44 cents or 2.3 percent, was for office and plant clerical employees, the group with the highest average, and the greatest, $3.27 or 30.1 percent, was for bundlers and packers, one of the low-paid occupations. Increases ranging from 1.3 to 12.4 percent took place in 8 of the 10 occupational classes between August 1934 and 1935. The smallest gain, or 18 cents, was for hand gluers and folders, and the largest, or $1.60, for machine feeders. During this same period, the average of strippers dropped 6 cents and that of miscellaneous other employees declined 24 cents or 1.4 percent. In May 1933, the range was from $10.69 for hand gluers and folders to $18.96 for office and plant clerical employees, but in August 1935 the range was from $13.79 for machine helpers to $20.10 for office and plant clerical employees.

From May 1933 to August 1934, the trend in the average weekly earnings of the four occupational classes of female workers in the South varied decidedly. Thus, while the average of the miscellaneous machine feeders remained unchanged and that of the miscellaneous machine operators declined slightly, the earnings of the miscellaneous direct employees increased $1.85 or 24.2 percent and those of the miscellaneous indirect employees advanced $3.70 or 43.1 percent. Between August 1934 and 1935, the averages of three occupational classes increased while that of the fourth class declined. The miscellaneous machine feeders showed the greatest gain, namely $2.54 or 24.6 percent. In May 1933, the range was from $7.64 for miscellaneous direct employees to $10.63 for miscellaneous machine operators, but in August 1935 it was from $10.19 for the former occupational class to $12.88 for miscellaneous machine feeders.

In three of the five identical occupations of males for which regional comparisons are possible, the percentages of increase in the average weekly earnings between May 1933 and August 1935 were greater in the South than in the North. This tended to reduce the differentials in favor of the North from $5.79 to $5.09 for strippers, from $5.52 to $4.55 for machine helpers, and from $5.42 to $5.03 for bun-

dlers and packers. In the case of pressmen, the South showed a relative decrease as compared with a relative increase in the North, thus causing an advance in the differential from $6.17 to $9.46. A rise in the differential for pressfeeders also took place, from $3.08 to $4.61, which was due to a larger relative increase in the North than in the South.

In every one of the six identical occupations in the North for which comparisons are possible by sex, the percentage gains in average earnings per week between May 1933 and August 1935 were much greater for females than for males, thereby causing a reduction in the wage differential in five of the occupations, namely, pressfeeders (from $6.69 to $5.72), automatic gluing-and folding-machine feeders (from $6.30 to $2.73), machine helpers (from $5.47 to $4.10), bundlers and packers (from $5.38 to $4.34), and machine feeders (from $3.40 to $2.79). In the case of strippers, however, the differential rose from $4.73 to $4.84.

Earnings and Hours in Blooming, Rail, Structural, Plate, and Billet Mills, Iron and Steel Industry, 1933 and 1935 [1]

ROLLING-MILL employees obtained substantial increases in average weekly earnings between 1933 and 1935. Data obtained by the Bureau of Labor Statistics in three of the five rolling-mill departments of the iron and steel industry indicate that between March 1933 and March 1935 such earnings rose 170 percent in rail mills, 162 percent in plate mills, and 114 percent in blooming mills. Information was not obtained for 1933 for the two remaining departments, but it is likely that pronounced gains occurred there also. These increases may be attributed to improved operating schedules and higher wage rates due to better business conditions, as well as to the influence of the iron and steel code.

In March 1935, the average weekly earnings [2] in blooming mills amounted to $23.69, in rail mills to $22.88, in structural mills to $19.30, in plate mills to $18.04, and in billet mills to $17.68.

[1] Prepared by Edward K. Frazier, of the Bureau's Division of Wages, Hours, and Working Conditions.

[2] The data in this article do not include office employees. As the general duties of these workers in the several departments covered are essentially the same, they will not be treated by individual departments but for the industry as a whole. Figures relating to this group of employees will be taken up in a later issue of this publication.

Since office workers have been excluded, all figures in this article relate to male employees.

Scope of Survey [3]

THE above facts are based on a recent survey made by the Bureau of Labor Statistics of wages, hours, and working conditions in the iron and steel industry, which covered the first half of March 1935. The survey included the workers in 21 departments, as well as office employees, giving a total coverage of slightly over 90,000 workers. The four basic departments, namely, blast furnaces, Bessemer converters, open-hearth furnaces, and electric furnaces, with 22,180 wage earners, were discussed in an article in the April 1936 issue of the Monthly Labor Review. The five departments here treated covered 15,854 workers. The remaining departments, as well as office employees and the industry as a whole, will be considered in subsequent articles.

The coverage for each of the five departments in the 1935 survey, with similar information for 1933 where available, is shown in table 1. In the case of blooming, rail, and plate mills, the number of employees scheduled in 1935 was greater than in 1933. In each department, however, the sample for both years was selected to yield a representative picture.

Table 1.—Coverage of 1933 and 1935 Surveys for 5 Rolling-Mill Departments

Department and year	Number of plants	Number of States	Number of wage earners	Department and year	Number of plants	Number of States	Number of wage earners
Blooming mills:				Structural mills: 1935	6	4	1,90
1933	32	9	4,528	Plate mills:			
1935	29	10	6,125	1933	17	5	3,8
Rail mills:				1935	18	6	4,2
1933	6	6	1,648	Billet mills: 1935	12	7	1,3
1935	7	7	2,185				

The averages and frequency distributions in this article are, as heretofore, given on a district basis only in those departments in which this could be done without revealing the identity of an individual plant.[4]

Blooming Mills

Average Hourly Earnings

HIGHER wage rates coupled with greater continuity of operations lifted the average hourly earnings in blooming mills from 48.8 cents in 1933 to 66.6 cents in 1935. This increase of 36.5 percent affected the entire wage structure, as may be seen from table 2, showing the

[3] The methods used in the collection of the 1935 data were described in the April 1936 issue of the Monthly Labor Review (pp. 1027–1029).

[4] For information as to the extent of each of the 4 geographical districts used, as well as their relation to the 21 code regions, see footnotes 7 and 8, pp. 1029 and 1030, April 1936 Monthly Labor Review.

istribution of employees according to average earnings per hour. n 1933, slightly over one-third of the workers received under 40 ents per hour, whereas in 1935 less than 3 percent earned under hat amount. From these figures it is plainly evident that the inimum wage rates established by the code [5] were of material enefit to the low-paid employees.[6] Another third of the workers in 933 earned 40 and under 50 cents, as compared with 18 percent in 935. Thus, in the former year two-thirds of the employees were aid less than 50 cents, whereas in the latter year only 20 percent arned less than that amount. This left slightly less than one-third f the workers receiving 50 cents and over per hour in 1933, as gainst 80 percent in 1935. Since four-fifths of the wage earners in 935 were paid 50 cents and over per hour, it is of interest to examine ore closely this part of the distribution. In 1935, 43 percent of he above employees earned 50 and under 60 cents, 32 percent earned 0 and under 75 cents, and 25 percent earned 75 cents and over; hereas, in 1933, the percentages were, respectively, 54, 27, and 19.

Table 2.—Distribution of Wage Earners in Blooming Mills According to Average Hourly Earnings, 1933 and 1935

Average hourly earnings	1933			1935		
	Number of wage earners	Simple percentage	Cumulative percentage	Number of wage earners	Simple percentage	Cumulative percentage
5.0 and under 20.0 cents	[1] 26	0.6	0.6			
0.0 and under 22.5 cents	15	.3	.9			
2.5 and under 25.0 cents	24	.5	1.4	1	(2)	(2)
5.0 and under 27.5 cents	28	.6	2.0			(2)
7.5 and under 30.0 cents	97	2.1	4.1	11	0.2	0.2
0.0 and under 32.5 cents	155	3.4	7.5	8	.1	.3
2.5 and under 35.0 cents	328	7.2	14.7	39	.6	.9
5.0 and under 37.5 cents	184	4.1	18.8	42	.7	1.6
7.5 and under 40.0 cents	710	15.8	34.6	35	.6	2.2
0.0 and under 42.5 cents	478	10.6	45.2	204	3.3	5.5
2.5 and under 45.0 cents	403	8.9	54.1	157	2.6	8.1
5.0 and under 47.5 cents	435	9.6	63.7	251	4.1	12.2
7.5 and under 50.0 cents	207	4.6	68.3	491	8.0	20.2
0.0 and under 55.0 cents	471	10.4	78.7	792	12.9	33.1
5.0 and under 60.0 cents	301	6.6	85.3	1,316	21.6	54.7
0.0 and under 65.0 cents	145	3.2	88.5	625	10.2	64.9
5.0 and under 70.0 cents	132	2.9	91.4	569	9.3	74.2
0.0 and under 75.0 cents	109	2.4	93.8	384	6.3	80.5
5.0 and under 80.0 cents	66	1.5	95.3	227	3.7	84.2
0.0 and under 85.0 cents	48	1.1	96.4	157	2.6	86.8
5.0 and under 90.0 cents	41	.9	97.3	125	2.0	88.8
0.0 and under 100.0 cents	40	.9	98.2	186	3.0	91.8
00.0 and under 110.0 cents	30	.7	98.9	153	2.5	94.3
10.0 and under 120.0 cents	19	.4	99.3	115	1.9	96.2
20.0 and under 130.0 cents	18	.4	99.7	69	1.1	97.3
30.0 and under 140.0 cents	9	.2	99.9	50	.8	98.1
40.0 and under 150.0 cents	6	.1	100.0	23	.4	98.5
50.0 and under 160.0 cents			100.0	23	.4	98.9
60.0 and under 170.0 cents	2	(2)	100.0	12	.2	99.1
70.0 and under 180.0 cents			100.0	9	.1	99.2
80.0 cents and over	1	(2)	100.0	51	.8	100.0
Total	4,528	100.0		6,125	100.0	

[1] Includes 2 employees earning under 15 cents.
[2] Less than 1/10 of 1 percent.

[5] The minimum wage rates established for common labor in each district are shown in footnote 8, p. 1030, of the April 1936 Monthly Labor Review.

[6] Nearly 46 percent of the workers in this department earning less than 40 cents per hour in 1933 were found in two occupations, namely common laborers and miscellaneous labor. In 1935, with the code in effect, only 2.2 percent were paid under that amount, even though this survey included 866 workers in the two occupations as against 909 in 1933.

Geographically, three wage levels existed in blooming mills in 1933, the lowest average being 38.0 cents in the Eastern district, the next highest 45.5 cents in the Southern district, and the highest in the Pittsburgh (50.7 cents) and the Great Lakes and Middle West (50.6 cents) districts.[7] In 1935, three levels also appeared, although there was a shift in the districts affected by each one. The differential between the Eastern and Southern districts had disappeared and the average for both was 63.0 cents. On the other hand, the Great Lakes and Middle West district showed an average of 69.2 cents, as compared with 65.9 cents in the Pittsburgh district. Thus between the 2 years the greatest absolute (25 cents) as well as percentage (67) gain in average hourly earnings went to Eastern workers, and the least, 15 cents, or 30 percent, to employees in the Pittsburgh district. In the two remaining districts, the absolute increases were close to 18 cents, and the percentage gain was 37 in the Great Lakes and Middle West district and 39 in the Southern district.

In 1935, according to table 3, the average earnings per hour by occupation and occupational groups, for all districts combined, ranged from 44.4 cents for common laborers to $1.608 for rollers.[8] The differential between these two figures is $1.164, as compared with 61.7 cents in 1933. The wider gap in 1935 was the result of an increase of 29 percent in the average hourly earnings of common laborers, as against one of 68 percent for rollers. The entire increase in the former occupation, which is paid on a time basis, represents advances in basic wage rates, while the higher earnings of the latter occupation are due in part to greater production. In all instances but one, the average hourly earnings of the skilled mill workers show greater percentages of gain than those of either semiskilled or unskilled workers.[9] Likewise, the earnings of semiskilled workers generally show greater percentages of increase than those of unskilled workers.

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[7] In 1931, the Eastern and Southern districts averaged, respectively, 58.2 and 61.7 cents. In 1929, however, the average in the Eastern district was 61.3 cents, as against 55.4 cents in the Southern district.

[8] For list of occupations for which no departmental averages will be presented, see footnote 10 on p. 1[illegible] of the April 1936 Monthly Labor Review.

[9] The skilled occupations are pit cranemen, heaters, electric-roll engineers, steam-roll engineers, roller manipulators, and shearmen; the semiskilled occupations are heaters' helpers, bottom makers, gas makers and transfer-table operators; and the unskilled occupations are bottom makers' helpers, cover operators, buggy operators, shearmen's helpers, chippers and grinders, common laborers, and miscellaneous labor.

Plant clerical and supervisory workers, as well as other direct and indirect labor, have not been classified as to skill.

Table 3.—Average Hourly Earnings of Wage Earners in Blooming Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				Eastern district				Pittsburgh district			
	1933		1935		1933		1935		1933		1935	
	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings
Pit cranemen	186	$0.571	225	$0.873	24	$0.347	38	$0.773	71	$0.620	73	$0.854
Heaters	157	.792	150	1.218	18	.525	20	1.023	61	.864	54	1.228
Heaters' helpers	30	.658	84	.920	(1)	(1)	26	.857	(1)	(1)	24	.705
Bottom makers	119	.581	113	.829	11	.368	12	.714	58	.640	41	.890
Bottom makers' helpers	106	.449	121	.652	14	.318	(1)	(1)	32	.526	40	.684
Gas makers	53	.440	84	.566	15	.305	47	.521	26	.486	26	.590
Cover operators	72	.361	99	.489	(2)	(2)	(1)	(1)	21	.370	36	.489
Buggy operators	63	.403	46	.558	(1)	(1)	(1)	(1)	40	.407	17	.534
Roll engineers, electric	29	.531	38	.778	(2)	(2)	(2)	(2)	(1)	(1)	10	.790
Roll engineers, steam	45	.700	36	1.219	(1)	(1)	(1)	(1)	22	.767	17	1.253
Rollers	71	.960	87	1.608	9	.692	16	1.429	27	1.100	25	1.670
Manipulators	69	.685	91	1.084	8	.488	16	.935	29	.828	25	1.179
Transfer-table operators	51	.439	104	.604	(1)	(1)	11	.647	25	.533	39	.663
Shearmen	81	.532	105	.802	8	.404	22	.727	35	.568	33	.815
Shearmen's helpers	71	.397	93	.626	14	.325	15	.672	24	.450	27	.660
Chippers and grinders	402	.452	1,232	.579	25	.334	89	.475	275	.458	466	.573
Common laborers	371	.343	370	.444	17	.291	63	.414	169	.358	111	.466
Miscellaneous labor [3]	538	.385	496	.520	38	.325	62	.512	273	.392	255	.520
Clerical, plant	259	.451	380	.628	18	.467	39	.669	117	.484	141	.618
Supervisory, plant	175	.639	181	.823	(1)	(1)	34	.705	70	.637	78	.854
Other direct labor [4]	204	.415	312	.609	15	.322	53	.604	69	.436	73	.619
Other indirect labor [4]	214	.440	308	.610	21	.394	33	.513	64	.464	120	.610

Occupation	Great Lakes and Middle West district				Southern district			
	1933		1935		1933		1935	
	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings
Pit cranemen	71	$0.584	88	$0.927	20	$0.586	26	$0.879
Heaters	65	.782	61	1.247	13	.838	15	1.304
Heaters' helpers	15	.774	21	1.151	(1)	(1)	13	1.005
Bottom makers	41	.537	50	.813	(1)	(1)	10	.823
Bottom makers' helpers	40	.480	44	.650	20	.388	30	.638
Gas makers	10	.498	(1)	(1)	(1)	(1)	(1)	(1)
Cover operators	41	.327	42	.469	10	.411	12	.464
Buggy operators	19	.402	18	.561	(2)	(1)	(1)	(1)
Roll engineers, electric	19	.542	24	.786	(1)	(1)	(1)	(1)
Roll engineers, steam	14	.750	10	1.348	(1)	(1)	(1)	(1)
Rollers	28	.946	36	1.615	7	.972	10	1.684
Manipulators	24	.625	38	1.072	8	.705	12	1.119
Transfer-table operators	15	.415	47	.554	(1)	(1)	(1)	(1)
Shearmen	32	.539	38	.822	(1)	(1)	12	.832
Shearmen's helpers	27	.425	44	.611	(1)	(1)	(1)	(1)
Chippers and grinders	93	.502	600	.615	9	.245	77	.430
Common laborers	164	.358	153	.473	21	.254	43	.348
Miscellaneous labor [3]	204	.407	135	.552	23	.285	44	.440
Clerical, plant	97	.440	155	.641	27	.393	45	.585
Supervisory, plant	85	.702	54	.865	11	.514	15	.749
Other direct labor [4]	98	.437	153	.625	22	.342	33	.519
Other indirect labor [4]	100	.459	116	.641	29	.406	39	.586

[1] Not a sufficient number reported to present averages.
[2] None reported.
[3] This group includes laborers who were paid either at more or less than the common-labor rate of the plants in which they were found. It also includes other unskilled jobs not generally designated as common labor on plant pay rolls.
[4] This group consists of various occupations either on direct or indirect work in which there were not enough employees in any one occupation to warrant showing separate averages.

Weekly Hours

THE average weekly hours of wage earners in this department for all districts combined were 35.5 in 1935, as compared to 22.7 in 1933. The latter figure represents approximately 43 percent of the normal full-time weekly hours of those employed during the period covered by that survey. The 1935 average, however, constitutes 89 percent of the average maximum of 40 hours permitted by the code and possibly 95 percent of the normal working time the average employee could expect under the hours provisions of the code.[10]

From these figures it will be seen that the average hours per week of employees were quite high in comparison with the weekly hours allowed under the code. However, slightly over 11 percent of the employees worked a week of less than 3 days, or 24 hours, and almost 10 percent more worked 24 and under 32 hours. Those who worked 32 and under 40 hours amounted to 21 percent, which is approximately the same percentage that worked a week of under 32 hours. The most frequent working time in this, as well as other departments, was 40 hours, as 43.8 percent were employed exactly that length of time. Those having a week of over 40 hours amounted to 14.4 percent, most of whom worked exactly 48 hours. Many of the employees in the latter group were in the heating and the chipping and grinding crews, as well as among the clerical and supervisory employees.

In 1935, the workers in the Eastern and Pittsburgh districts averaged approximately the same number of weekly hours, which were respectively 34.1 and 34.2. In 1933, however, employees in the Eastern district averaged 25.3 hours, as against 21.8 in the Pittsburgh district. The averages in the Great Lakes and Middle West and Southern districts in 1935 were somewhat alike, being 36.8 in the former as against 37.9 in the latter. There was considerable difference in the working time of employees in these two districts in 1933, as Southern workers were afforded a week of 35.3 hours as against 20.9 in the Great Lakes and Middle West district.

Since the average weekly hours of all employees increased slightly over 56 percent between 1933 and 1935, it is interesting to see what effect this gain had on working time in the various occupations.

In 1933, according to table 4, only 5 of 11 occupations averaged as much as 25 hours per week. Of these five occupations the only one that had as much as 31 hours of work was heaters' helpers. The shortest working time was that of common laborers, who had an opportunity to work only 17.3 hours. The next longest was that of shearmen's helpers, who worked 20.2 hours. Other occupations averaging less than 25 hours were shearmen, manipulators, bottom makers, and their helpers. Examination of the occupations shows

[10] For hours permitted under the code, see footnote 13, p. 1035, of the April 1936 Monthly Labor Review

that the skilled workers on the whole had a longer workweek than the unskilled or semiskilled employees.

Table 4.—Average Weekly Hours of Wage Earners in Blooming Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				1935 [1]							
	1933		1935		Eastern district		Pittsburgh district		Great Lakes and Middle West district		Southern district	
	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours
Pit cranemen	186	26.8	225	36.2	38	34.7	73	34.7	88	36.6	26	41.1
Heaters	157	29.3	150	39.4	20	37.8	54	39.3	61	39.5	15	41.6
Heaters' helpers	30	31.9	84	37.2	26	37.0	24	33.9	21	39.3	13	40.6
Bottom makers	119	23.1	113	35.4	12	33.6	41	31.5	50	38.0	10	40.3
Bottom makers' helpers	106	23.1	121	34.8	[2]	[2]	40	30.6	44	36.0	30	39.3
Gas makers	53	[3]	84	34.0	47	32.5	26	39.0	[2]	[2]	[2]	[2]
Cover operators	72	[3]	99	32.9	[2]	[2]	36	29.6	42	33.6	12	38.8
Buggy operators	63	[3]	46	32.2	[2]	[2]	17	26.5	18	36.6	[2]	[2]
Roll engineers, electric	29	[3]	38	32.9	[4]	[4]	10	38.9	24	29.6	[2]	[2]
Roll engineers, steam	45	25.0	36	33.1	[2]	[2]	17	28.4	10	41.6	[2]	[2]
Rollers	71	26.9	87	35.3	16	30.8	25	30.3	36	39.1	10	41.4
Manipulators	69	23.1	91	33.9	16	29.1	25	29.3	38	37.8	12	37.6
Transfer-table operators	51	[3]	104	33.2	11	31.5	39	35.2	47	31.6	[2]	[2]
Shearmen	81	21.6	105	33.6	22	32.9	33	27.1	38	35.9	12	40.6
Shearmen's helpers	71	20.2	93	33.5	15	28.3	27	31.6	44	35.7	[2]	[2]
Chippers and grinders	402	[3]	1,232	36.2	89	30.5	466	33.9	600	38.5	77	39.0
Common laborers	371	17.3	370	31.0	63	32.6	111	31.6	153	28.6	43	35.9
Miscellaneous labor [5]	538	[3]	496	34.7	62	34.6	255	32.6	135	37.7	44	38.0
Clerical, plant	259	[3]	380	36.3	39	36.0	141	36.2	155	36.4	45	37.0
Supervisory, plant	175	[3]	181	44.1	34	42.2	78	44.9	54	45.9	15	38.1
Other direct labor [6]	204	[3]	312	35.5	53	35.0	73	33.3	153	36.8	33	35.2
Other indirect labor [6]	214	[3]	308	36.5	33	29.8	120	36.7	116	37.4	39	39.0

[1] No averages by districts are available for 1933.
[2] Not a sufficient number reported to present average.
[3] Averages not available.
[4] None reported.
[5] See footnote 3, p. 1619.
[6] See footnote 4, p. 1619.

In 1935, there was little difference between the hours of labor available for the different classes of workers. Thus, common laborers averaged only 4 hours less than rollers, 3 hours less than manipulators, and 2 hours less than steam-roll engineers. As in 1933, the pit cranemen, heaters, and heaters' helpers had the longest workweek. This is only natural, as some of this crew must remain on duty when the mill is not operating, in order to see that a supply of rolling material is ready when the rolling crew arrives. Since the amount of this extra time varies with the continuity of operation, the less regular the operation of the mill the greater the differential in hours between these occupations and the rolling crew.

The greatest increase in working time between 1933 and 1935 was 79.2 percent for common laborers and the smallest was 16.6 percent for heaters' helpers. Other occupations showing a gain of over 50 percent were bottom makers and their helpers and shearmen and their

helpers. The increases among the rolling crew, as far as the information for both years is available, were 32 for steam-roll engineers, 31 for rollers, and 47 for manipulators.

Weekly Earnings

AVERAGE weekly earnings of blooming-mill workers amounted to $23.69 in 1935, as compared with $11.09 in 1933. This gain of $12.60, or 114 percent, resulted from a 36-percent increase in average hourly earnings and a 56-percent gain in average weekly hours.

The distribution of employees according to weekly earnings reveals that, for all districts combined, 11.6 percent earned under $12 per week in 1935 and only 10.4 percent earned $36 and over. About 50 percent of those who earned $12 were found in four occupations, namely common laborers, miscellaneous labor, chippers, and grinders, and clerical employees. Slightly over 60 percent of those who earned $36 and over were in the occupations of pit cranemen, heaters, rollers, manipulators and supervisory workers. The group earning $12 and under $18 formed 16.9 percent of the total. Thus, almost 30 percent of the employees were paid less than $18 during the week covered by this survey. The group earning $18 and under $24 included 32.4 percent of the employees. Furthermore, it will be noticed that 19.9 percent earned $24 and under $30, and 8.8 percent $30 and under $36.

In all but the Southern district, the average weekly earnings in 1935 were more than double what they were in 1933, as they rose from $9.56 to $21.56 in the Eastern district, from $11.03 to $22.49 in the Pittsburgh district, and from $10.55 to $25.44 in the Great Lakes and Middle West district. In the Southern district, they increased from $16.18 in 1933 to $24.04 in 1935, representing a gain of 48.6 percent; this comparatively small advance was due to the relatively higher earnings in 1933 in that district.

In 1933, the average weekly earnings by occupations for all districts combined, as shown in table 5, ranged from $5.95 for common laborers to $25.90 for rollers. While this is a very wide differential, it increased still more in 1935, when common laborers earned an average of only $13.77 as against $56.76 for rollers. In 1933, 3 of 11 occupations averaged as much as $20, but in 1935 only 5 of 22 occupations averaged less than $20. Between the 2 years, the average earnings per week of each of the 11 occupations for which comparable data are available, with the exception of heaters' helpers, increased over 100 percent.

Table 5.—Average Weekly Earnings of Wage Earners in Blooming Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				1935 [1]							
	1933		1935		Eastern district		Pittsburgh district		Great Lakes and Middle West district		Southern district	
	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings
Pit cranemen	186	$15.32	225	$31.58	38	$26.77	73	$29.66	88	$33.90	26	$36.14
Heaters	157	23.42	150	47.99	20	38.61	54	48.31	61	49.23	15	54.25
Heaters' helpers	30	20.13	84	34.26	26	31.67	24	23.88	21	45.27	13	40.82
Bottom makers	119	14.26	113	29.31	12	23.98	41	28.00	50	30.91	10	33.12
Bottom makers' helpers	106	10.43	121	22.66	(2)	(2)	40	20.92	44	23.42	30	25.07
Gas makers	53	(3)	84	19.24	47	16.96	26	23.05	(2)	(2)	(2)	(2)
Cover operators	72	(3)	99	16.10	(2)	(2)	36	14.51	42	15.76	12	17.98
Buggy operators	63	(3)	46	17.97	(2)	(2)	17	14.14	18	20.52	(2)	(2)
Roll engineers, electric	29	(3)	38	25.61	(4)	(4)	10	30.71	24	23.27	(3)	(3)
Roll engineers, steam	45	17.40	36	40.39	(2)	(2)	17	35.55	10	56.00	(2)	(2)
Rollers	71	25.90	87	56.76	16	44.08	25	50.59	36	63.08	10	69.73
Manipulators	69	15.76	91	36.73	16	27.24	25	34.53	38	40.49	12	42.07
Transfer-table operators	51	(3)	104	20.03	11	20.40	39	23.34	47	17.50	(3)	(3)
Shearmen	81	11.50	105	26.49	22	23.88	33	22.13	38	29.48	12	33.78
Shearmen's helpers	71	7.98	93	20.95	15	19.04	27	20.83	44	21.84	(3)	(3)
Chippers and grinders	402	(3)	1,232	20.97	89	14.47	466	19.45	600	23.66	77	16.80
Common laborers	371	5.95	370	13.77	63	13.50	111	14.73	153	13.55	43	12.50
Miscellaneous labor [5]	538	(3)	496	18.05	62	17.71	255	16.92	135	20.78	44	16.72
Clerical, plant	259	(3)	380	22.84	39	24.12	141	22.33	155	23.33	45	21.66
Supervisory, plant	175	(3)	181	36.33	34	29.74	78	38.35	54	39.73	15	28.52
Other direct labor [6]	204	(3)	312	21.62	53	21.13	73	20.63	153	22.97	33	18.29
Other indirect labor [6]	214	(3)	308	22.28	33	15.31	120	22.40	116	23.94	39	22.86

[1] No averages by districts are available for 1933.
[2] Not a sufficient number reported to present averages.
[3] No data available.
[4] None reported.
[5] See footnote 3, p. 1619.
[6] See footnote 4, p. 1619.

Heaters' helpers reported a gain of 70 percent. The weekly earnings of common laborers increased 131 percent, which is the same as for the skilled occupations of manipulators and shearmen, and considerably higher than the 119 percent for rollers and the 105 percent for heaters. While the largest percentage gain (163 percent) went to shearmen's helpers, the greatest absolute increase ($30.86) was obtained by rollers. The smallest percentage increase went to heaters' helpers, but common laborers had the smallest absolute gain ($7.82).

Rail Mills

Average Hourly Earnings

In 1935, the average hourly earnings of employees in rail mills amounted to 66.8 cents,[11] as against 52.2 cents in 1933. This gain of 28 percent was somewhat lower than that for blooming mills, and as a result the averages for these two heavy-rolling-mill departments

[11] This average is 4 cents higher than that for 1929 and 7 cents above the average for 1926.

were practically identical in 1935. In 1933, the average in blooming mills was lower than that in rail mills, although under normal conditions the average in the former runs approximately 4 cents higher than that in the latter.

The distribution of wage earners in rail mills according to average hourly earnings reveals that every class of labor benefited from the improved conditions in 1935. Only 4.5 percent of the workers received less than 40 cents per hour, as against 33.1 percent in 1933. Again, in 1935 only 20.6 percent earned 40 and under 50 cents, as compared with 31.5 percent in 1933. Thus, almost two-thirds of the employees in 1933 were found to be earning less than 50 cents, as compared with one-fourth in 1935. These changes are all the more significant in view of the fact that an additional rail-mill plant covered in 1935 is located in what was one of the lowest-paid districts in 1931. Thus, its omission in 1933 tended to raise the average for that year, whereas its inclusion in 1935 tended to produce the opposite effect. Employees paid 50 and under 75 cents in 1933 formed approximately 27 percent of the total, but in 1935 slightly more than 50 percent fell within that range. Less than 10 percent of the employees in 1933 earned 75 cents and over, with few of these receiving more than $1, whereas in 1935 about one-fourth earned 75 cents and over and many received more than $1 an hour.

Among the occupation averages shown in table 6, the range in 1933 was from 33.7 cents per hour for common laborers to $1.335 for rollers, whereas in 1935 it was from 44.5 cents to $1.591 for the same occupations. Thus, this differential increased from $1.00 in 1933 to $1.15 in 1935. However, common laborers' average hourly earnings were increased 32 percent, as against 19 percent for rollers. While the largest percentage gain (43 percent) in average earnings per hour between the 2 years was received by the semiskilled occupation [12] of transfer-table operators, the largest absolute increase, amounting to 26.9 cents, went to the skilled occupation of reheaters. On the other hand, the smallest percentage as well as the smallest absolute gain went to the skilled occupation of steam roll engineers. Plant supervisory employees also received a very small increase in earnings between the 2 years—only 4.2 cents, or about 6 percent.

[12] The skilled occupations are charging-machine operators, reheaters, steam and electric roll engineers, rollers, table levermen, guide setters, straighteners, and inspectors; the semiskilled occupations are reheaters' helpers, transfer-table operators, hot-saw men, and drillers and punchers; the unskilled occupations and hotbed men, straighteners' helpers, chippers, common laborers, and miscellaneous labor.

Plant clerical and supervisory employees and other direct and indirect labor were not classified as to skill.

Table 6.—Average Hourly Earnings of Wage Earners in Rail Mills, by Occupation, 1933 and 1935

Occupation	1933		1935	
	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings
Charging-machine operators	16	$0.530	21	$0.749
Reheaters	15	.966	20	1.235
Reheaters' helpers	14	.558	16	.791
Roll engineers, electric	(1)	(1)	18	.913
Roll engineers, steam	17	.692	15	.727
Rollers	10	1.335	17	1.591
Table levermen	62	.702	66	.924
Guide setters	26	.761	36	1.013
Transfer-table operators	53	.423	70	.605
Hot-saw men	21	.584	17	.733
Hotbed men	46	.391	43	.543
Straighteners, gag press	69	.894	72	1.021
Straighteners' helpers	80	.542	117	.678
Chippers	75	.573	160	.645
Drillers and punchers	130	.578	148	.682
Inspectors, rails	53	.472	72	.594
Common laborers	156	.337	131	.445
Miscellaneous labor [2]	244	.397	390	.508
Clerical, plant	51	.480	98	.632
Supervisory, plant	51	.739	67	.781
Other direct labor [3]	120	.530	129	.754
Other indirect labor [3]	50	.427	79	.584

[1] Not a sufficient number reported to present averages.
[2] See footnote 3, p. 1619.
[3] See footnote 4, p. 1619.

Weekly Hours

AVERAGE weekly hours in this department in 1935 were 110 percent above the 1933 level, rising from 16.3 in the latter year to 34.3 in 1935. While the 1935 average represents 86 percent of the maximum 6 months' average allowed under the code, nearly 22 percent of the employees worked less than 24 hours during the week scheduled. However, 31 percent worked a week of over 40 hours. Another group of employees, comprising 31 percent of the total, obtained 24 and under 40 hours' work. Only 16.4 percent worked a week of exactly 40 hours. This percentage is much smaller than that for blooming mills, as 43.8 percent of the workers in that department had a week of that length.

In 1933, the average hours by occupation varied from 11.4 for chippers to 25.6 for rollers, whereas in 1935 the range was from 24.4 for steam roll engineers to 45.2 for rollers. Thus, while the highly skilled occupation of rollers obtained the highest average weekly hours in both years, the lowest in 1933 was in the unskilled occupation of chippers and in 1935 in the skilled occupation of steam roll engineers. In general, it may be stated that in both years the longest working time occurred in the occupations having the highest average hourly earnings, namely, charging-machine operators, reheaters, rollers, table levermen, guide setters, and straighteners—all skilled occupations. Very little difference appears between the working time shown for the semiskilled occupations and the unskilled occupa-

tions, the semiskilled occupations of reheaters' helpers showing 30.5 hours, hot-saw men 39.9, drillers and punchers 31.8, and transfer-table operators 35.0, as compared with the unskilled occupations of chippers with 27.9 hours, hotbed men with 36.7, straighteners' helpers with 34.2, common laborers with 29.7, and miscellaneous labor with 33.1.

Weekly Earnings

In 1935, the average weekly earnings of rail-mill employees were $22.88, as against $8.47 in 1933. This gain of 170 percent was brought about by increased weekly hours, as well as by higher average hourly earnings.

Due to considerable part-time work in 1935, the information reveals, 21.2 percent of the employees had weekly earnings of less than $12. Nearly 60 percent of these employees were found in the occupations of chippers, drillers and punchers, common laborers, and miscellaneous labor. Outside of this group, there was no tendency toward concentration of the workers in any particular earnings class. Those earning $12 and under $18 formed 15.2 percent of the total. Thus, altogether, 36.4 percent received less than $18. The class of $18 and under $28 included 35.6 percent, or practically the same percentage as those who earned under $18. Of the remaining 28.0 percent receiving $28 and over, about one-fifth were paid $44 and over. A large part of these were found in the skilled occupations of reheaters, rollers, table levermen, guide setters, and straighteners.

On account of the extremely low operating time in rail mills during the 1933 survey, hotbed men, straighteners' helpers, chippers, and common laborers had weekly earnings of less than $7. In 1935, these same occupations averaged, respectively, $19.95, $23.18, $18.00, and $13.21. In the former year, drillers and punchers received only $7.66 and inspectors only $7.11 for their week's work, whereas in 1935 the earnings of both of these occupations were close to $22. In fa t, in 1933 the only occupations which earned an average of more than $19 per week were the skilled ones of rollers and reheaters, but in 1935 only 4 occupations and 1 occupational group of the 22 averaged less than that amount. Between the 2 years, the highest percentage of increase in weekly earnings occurred in the unskilled occupation of hotbed men, and the lowest in the skilled occupation of steam roll engineers. The lowest occupational averages in both years were for common laborers, which were only $4.45 in 1933 and $13.21 in 1935. A contrast of these earnings with those of rollers, $33.80 in 1933 and $71.90 in 1935, reveals that, in times of returning prosperity, the differential between the wages of unskilled workers and skilled workers tends to widen. Thus, the differential between the two above occupations doubled, rising from $29.35 in 1933 to $58.69 in 1935.

Structural Mills

Average Hourly Earnings

WAGE EARNERS in structural mills received an average of 59.3 cents per hour during the period covered by this survey. As no data were secured for this department in 1933, no comparisons are possible between the earnings and hours in that year and in 1935.

There was a well-defined tendency in 1935 toward a concentration of the workers in these mills in the wage class of 47.5 and under 65 cents per hour, 66.5 percent falling within these limits. Those earning less than 47.5 cents constituted only 10 percent of the total, with only two workers in this group being paid less than 37.5 cents. In the class receiving 65 cents and over (23.5 percent) 17.8 percent earned 65 and under 85 cents and the remaining 5.7 percent, 85 cents and over.

Among the occupational averages shown in table 7, the highest was $1.395 per hour for the skilled [13] occupation of rollers, and the lowest was 48.5 cents for the unskilled occupation of common laborers. This differential of 91.0 cents was considerably less than that of $1.146 between the same occupations in rail mills, the closest related department, where rollers in 1935 received an average of $1.591 and common laborers 44.5 cents. As many of the furnaces in the structural department are equipped with mechanical charging devices, the duties of their chargers require less skill than when hand-operated charging machines and charging cranes are used. As a result, chargers earned an average of only 67.0 cents, as against 68.4 cents for the semiskilled occupation of heaters' helpers, and 74.9 cents for the skilled occupation of charging-machine operators in rail mills, where most of the charging equipment is hand operated.

Table 7.—Average Hourly Earnings of Wage Earners in Structural Mills, by Occupation, 1935

Occupation	Number of wage earners	Average hourly earnings	Occupation	Number of wage earners	Average hourly earnings
Chargers	21	$0.670	Straighteners' helpers	74	$0.500
Heaters	20	.987	Shearmen	21	.619
Heaters' helpers	23	.684	Shearmen's helpers	116	.514
Roll engineers, electric	17	.684	Chippers	119	.555
Rollers	18	1.395	Inspectors, product	70	.613
Assistant rollers	21	.900	Common laborers	86	.485
Guide setters	16	.797	Miscellaneous labor [1]	200	.513
Tilting-table operators	67	.754	Clerical, plant	174	.597
Transfer-table operators	22	.521	Supervisory, plant	59	.702
Hotbed men	84	.526	Other direct labor [2]	85	.576
Straighteners	33	.631	Other indirect labor [2]	82	.596

[1] See footnote 3, p. 1619.

[2] See footnote 4, p. 1619.

[13] The skilled occupations are heaters, electric roll engineers, rollers, assistant rollers, guide setters, tilting-table operators, shearmen, and inspectors; the semiskilled occupations are chargers, heaters' helpers, transfer-table operators, and straighteners; the unskilled occupations are hotbed men, straighteners' helpers, shearmen's helpers, chippers, common laborers, and miscellaneous labor.

Plant clerical and supervisory employees and other direct and indirect labor have not been classified as to skill.

Weekly Hours

AVERAGE weekly hours of labor in the structural-mill department amounted to 32.5 in 1935. It is safe to assume that this average is much higher than that prevailing in March 1933, when all types of construction work requiring structural shapes were at a virtual standstill. A comparison of weekly hours in 1935 in other rolling-mill departments with those in 1933 substantiates this assumption.

In 1935, 16.6 percent of the employees had a week of less than 24 hours, and 13.5 percent a week of over 40 hours. Although a considerable number of employees in the unskilled occupations of common laborers and miscellaneous labor worked less than 24 hours, this short workweek was not confined to any one type of work, as 24 percent of the employees in the skilled occupation of assistant rollers and 35 percent in the skilled occupation of heaters, as well as 30 percent of the workers in the semiskilled occupation of heaters' helpers, fell within that class. The above percentages are typical of those in other occupations. Generally speaking, those working over 40 hours per week were likewise not entirely confined to employees in the skilled occupations, as workers in unskilled and semiskilled occupations are also represented in this group.

Those working 24 and under 40 hours formed 40 percent of the total, and those working a week of exactly 40 hours 29.9 percent. As may be seen, the weekly hours as well as the average hourly earnings for employees in this department tended to concentrate in certain well-defined classes. The average weekly hours by occupation in this department in 1935 ranged from 25.2 for common laborers to 41.8 for plant supervisory employees. Other occupations averaging less than 30 hours were heaters and their helpers, assistant rollers, chippers, and inspectors. It is again apparent that the short workweek was not confined to any one type of work. In fact, the unskilled occupation of hotbed men had a longer workweek (34.2 hours) than the skilled occupation of rollers (33.4 hours), and miscellaneous labor a higher average (30.2 hours) than the skilled occupation of heaters (29.2 hours). Likewise, the unskilled occupation of straighteners' helpers averaged a longer workweek (34.0 hours) than the skilled occupation of inspectors (27.7).

Weekly Earnings

THE average weekly earnings of structural-mill employees amounted to $19.30 in March 1935. This average approximates that of puddling-mill workers ($19.62), but is $3.58 less than that of $22.88 for rail mills. Comparison with the averages of employees in the two main steel-making departments shows that the average of structural-mill workers is quite close to that of $20.26 for Bessemer converters, but $6.54 less than that of $25.84 for open-hearth-furnace workers.

In 1935, 18.4 percent of the employees earned less than $12 per week and 17.4 percent received $26 and over. The class of $12 and under $18 constituted 23.2 percent, making 41.6 percent with earnings of less than $18, as compared with 36.4 percent for rail mills. Those in structural mills earning $18 and under $26 constituted 41.0 percent of the total. In general, one-third of the employees earned under $16, another third $16 and under $22, and the remaining third, $22 and over.

Occupational averages of structural-mill workers in 1935 ranged from $12.23 for common laborers to $46.55 for rollers. The differential in average weekly earnings between these two occupations was $34.32, whereas in the heavy rolling-mill departments—blooming mills, sheared plate mills, and rail mills it was approximately $43, $31, and $58, respectively. Occupations other than common laborers earning less than the average for the department were heaters' helpers ($18.05), transfer-table operators ($16.59), hotbed men ($17.97), straighteners' helpers ($17), shearmen's helpers ($15.57), chippers ($14.66), inspectors ($16.95), and miscellaneous labor ($15.50). Among the occupations other than rollers having average weekly earnings above those for the department, the range was from $21.15 for plant clerical workers to $29.38 for plant supervisory employees. The above range does not include the two occupational groups designated as "Other direct labor" and "Indirect labor", which averaged, respectively, $19.41 and $19.87.

Plate Mills

Average Hourly Earnings

AVERAGE hourly earnings in the plate-mill department increased 38.8 percent between 1933 and 1935. In the former year they amounted to 44.9 cents, as compared with 62.3 cents in the latter. Since the 1933 survey did not include data from southern plants, whereas the one for 1935 did, it is interesting to know that the 1935 average would have been increased by only half a cent had the southern plants been omitted, as they were in 1933.

In 1933, according to table 8, 10.5 percent of the workers were paid less than 32.5 cents per hour, and 29.5 percent earned 32.5 cents and under 40 cents. In 1935, however, the benefits derived from the setting of minimum rates by the code, together with increased production, are plainly evident. Less than one-half of 1 percent earned under 32.5 cents, and only 2.8 percent earned 32.5 and under 40 cents; i. e., the percentage receiving less than 40 cents per hour dropped from 40 in 1933 to 3 in 1935. Again, in 1933, 33.8 percent earned 40 and under 50 cents, as against 23.1 percent in 1935. Thus, in the former year, nearly three-fourths of the workers received less

than 50 cents per hour, as compared with about one-fourth in 1935. The class of 50 and under 70 cents embraced 52.8 percent, or slightly more than one-half of the employees covered in 1935, whereas in 1933 it included only 19.0 percent. From these figures it may be seen that in 1933 only 7.2 percent earned 70 cents and over per hour, as against 21.1 percent in 1935. In each year, very few of the workers receiving 70 cents and over were paid $1 or more.

Table 8.—Distribution of Wage Earners in Plate Mills According to Average Hourly Earnings, 1933 and 1935

Average hourly earnings	1933			1935		
	Number of wage earners	Simple percentage	Cumulative percentage	Number of wage earners	Simple percentage	Cumulative percentage
20.0 and under 25.0 cents	[1] 30	0.8	0.8			
25.0 and under 27.5 cents	140	3.6	4.4	1	[2]	[2]
27.5 and under 30.0 cents	90	2.3	6.7			[2]
30.0 and under 32.5 cents	147	3.8	10.5	9	0.2	0.2
32.5 and under 35.0 cents	301	7.8	18.3	48	1.1	1.3
35.0 and under 37.5 cents	239	6.2	24.5	54	1.3	2.6
37.5 and under 40.0 cents	592	15.5	40.0	18	.4	3.0
40.0 and under 42.5 cents	421	11.0	51.0	159	3.7	6.7
42.5 and under 45.0 cents	227	5.9	56.9	87	2.0	8.7
45.0 and under 47.5 cents	401	10.5	67.4	191	4.5	13.2
47.5 and under 50.0 cents	247	6.4	73.8	554	12.9	26.1
50.0 and under 55.0 cents	299	7.8	81.6	736	17.2	43.3
55.0 and under 60.0 cents	219	5.7	87.3	638	14.9	58.2
60.0 and under 65.0 cents	119	3.1	90.4	516	12.0	70.2
65.0 and under 70.0 cents	94	2.4	92.8	372	8.7	78.9
70.0 and under 75.0 cents	71	1.9	94.7	253	5.9	84.8
75.0 and under 80.0 cents	46	1.2	95.9	156	3.6	88.4
80.0 and under 85.0 cents	35	.9	96.8	102	2.4	90.8
85.0 and under 90.0 cents	23	.6	97.4	94	2.2	93.0
90.0 and under 100.0 cents	32	.8	98.2	137	3.2	96.2
100.0 and under 110.0 cents	23	.6	98.8	64	1.5	97.7
110.0 and under 120.0 cents	14	.4	99.2	37	.9	98.6
120.0 and under 130.0 cents	7	.2	99.4	13	.3	98.9
130.0 and under 140.0 cents	7	.2	99.6	12	.3	99.2
140.0 and under 150.0 cents	2	.1	99.7	8	.2	99.4
150.0 and under 160.0 cents	3	.1	99.8	9	.2	99.6
160.0 cents and over	8	.2	100.0	16	.4	100.0
Total	3,837	100.0		4,284	100.0	

[1] Includes 1 employee who earned under 20 cents.
[2] Less than 1/10 of 1 percent.

The two wage levels that existed in this department in 1933 were also evident in 1935, although to a considerably smaller degree. The lower level in 1933 was in the Eastern district, where the average was 38.5 cents per hour, as compared with 50.2 cents in the Pittsburgh and 48.8 cents in the Great Lakes and Middle West districts. With the code in effect in 1935, the average of the Eastern district was 6.5 cents lower than that of the Pittsburgh district and 3.5 cents lower than that of the Great Lakes and Middle West district, whereas in 1933 the respective differences were 11.7 and 10.3 cents. When the Eastern and Southern districts in the 1935 survey are combined, the average hourly earnings vary but slightly, changing from 58.9 to 58.1 cents, and thus the differentials shown above still hold true with slight modifications. The average for the Pittsburgh district

in 1935 was 65.4 cents, as against 62.4 cents in the Great Lakes and Middle West district.

From the occupational averages presented in table 9 it will be seen that for all districts combined the range in average hourly earnings in 1933 was from 31.8 cents for common laborers to 88.3 cents for the skilled occupation[14] of sheared-plate-mill rollers. In 1935 the averages for these same occupations were, respectively, 46.8 cents and $1.366. The differential of 56.5 cents existing in the former year was thus increased to 89.8 cents in 1935, due to the fact that the earnings of common laborers advanced 47 percent, as against 55 percent for sheared-plate-mill rollers. Among the 20 occupations listed, the percentage of increase in hourly earnings between the 2 years shows no definite trend in favor of any one class of labor, as the percentages of gain varied among skilled occupations from 35 for steam-roll engineers to 67 for electric-roll engineers, among semiskilled from 28 percent for transfer-table operators to 66 for heaters' helpers, and among the unskilled from 32 for miscellaneous labor to 47 for common laborers, as well as shearmen's helpers.

Table 9.—Average Hourly Earnings of Wage Earners in Plate Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				Eastern district, 1933		Eastern and Southern districts, 1935	
	1933		1935					
	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings
Charging-crane and charging-machine operators	77	$0.496	88	$0.685	23	$0.429	36	$0.689
Heaters	89	.742	77	1.031	24	.616	33	.962
Heaters' helpers	69	.405	60	.671	29	.367	21	.596
Roll engineers, electric	30	.433	38	.723	(1)	(1)	13	.610
Roll engineers, steam	36	.468	13	.624	(1)	(1)	(1)	(1)
Rollers, sheared-plate	36	.883	36	1.366	11	.824	13	1.286
Screwmen, sheared-plate	40	.661	37	.939	17	.525	15	.781
Hookmen, sheared-plate	84	.480	87	.691	22	.412	27	.654
Rollers, universal-plate	13	.811	15	1.254	(1)	(1)	(1)	(1)
Transfer-table operators	82	.417	80	.534	10	.306	16	.484
Cold-roll operators	60	.413	64	.589	18	.342	25	.525
Layers out and markers	114	.453	103	.683	41	.361	49	.570
Layers-out and markers' assistants	94	.400	86	.562	20	.348	18	.475
Shearmen	136	.527	155	.789	41	.436	51	.684
Shearmen's helpers	488	.397	444	.582	133	.364	162	.550
Inspectors, product	109	.436	156	.621	36	.405	59	.589
Common laborers	338	.318	381	.468	78	.261	110	.408
Miscellaneous labor [2]	419	.395	588	.523	45	.336	144	.454
Clerical, plant	150	.394	471	.621	30	.319	159	.570
Supervisory, plant	135	.616	130	.760	41	.469	59	.725
Other direct labor [3]	282	.436	291	.631	68	.371	130	.576
Other indirect labor [3]	50	.439	107	.626	(1)	(1)	35	.624

[1] Not a sufficient number reported to present averages.
[2] See footnote 3, p. 1619.
[3] See footnote 4, p. 1619.

[14] The skilled occupations are charging-crane and charging-machine operators, heaters, electric and steam-roll engineers, sheared and universal plate rollers, screwmen, layers-out and markers, shearmen, and inspectors; the semiskilled occupations are heaters' helpers, hookmen, transfer-table operators, layer-out and markers' assistants, and cold-roll rollers; the unskilled occupations are common laborers, miscellaneous labor, and shearmen's helpers.

Plant clerical and supervisory employees and other direct and indirect labor have not been classed as to skill.

Table 9.—Average Hourly Earnings of Wage Earners in Plate Mills, by Occupation and District, 1933 and 1935—Continued

Occupation	Pittsburgh district				Great Lakes and Middle West district			
	1933		1935		1933		1935	
	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings	Number of wage earners	Average hourly earnings
Charging-crane and charging-machine operators	34	$0.601	25	$0.754	20	$0.469	27	$0.6
Heaters	43	.923	27	1.167	22	.735	17	.9
Heaters' helpers	20	.514	30	.754	20	.416	(1)	(1)
Roll engineers, electric	(1)	(1)	10	.778	22	.515	15	.7
Roll engineers, steam	18	.548	(1)	(1)	(1)	(1)	(1)	(1)
Rollers, sheared-plate	13	1.024	13	1.413	12	.838	10	1.4
Screwmen, sheared-plate	11	.828	13	1.110	12	.846	(1)	(1)
Hookmen, sheared-plate	27	.535	35	.725	35	.534	25	.6
Rollers, universal-plate	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Transfer-table operators	25	.491	19	.569	47	.439	45	.5
Cold-roll operators	27	.517	18	.663	15	.450	21	.5
Layers-out and markers	45	.618	27	.863	28	.459	27	.6
Layers-out and markers' assistants	39	.394	42	.580	35	.454	26	.5
Shearmen	48	.692	50	.940	47	.526	54	.7
Shearmen's helpers	251	.443	197	.618	104	.369	85	.5
Inspectors, product	40	.470	54	.643	33	.482	43	.6
Common laborers	162	.378	168	.484	98	.350	103	.5
Miscellaneous labor [2]	231	.413	260	.543	143	.412	184	.5
Clerical, plant	80	.440	173	.655	40	.410	139	.6
Supervisory, plant	35	.684	44	.780	59	.697	27	.7
Other direct labor [3]	145	.499	96	.673	69	.465	65	.6
Other indirect labor [3]	(1)	(1)	25	.656	41	.450	47	.6

[1] Not a sufficient number reported to present averages.
[2] See footnote 3, page 1619.
[3] See footnote 4, 1619.

The average hourly earnings of common laborers in this department were higher in 1935 than for any other year except 1920, when they amounted to 49.8 cents, or 3 cents more than in 1935. Since the average for 1935 in this occupation is 6 cents higher than that in 1929, comparisons between the averages in 1929 and 1935 for other occupations for which they are available may be interesting. Such averages were all lower in 1935 than in 1929, except in the occupation of heaters' helpers, where the averages for both years were identical.

Weekly Hours

AVERAGE weekly hours of plate-mill employees amounted to 29.0 in 1935, as against 15.3 in 1933. This increase of 13.7 hours, or 89.5 percent, reflects clearly the improved operating schedules, which were brought about by increased activity in railroad repair and car building, ship and barge building, bridge building, dam construction, and the manufacture of tank plates, pipes, tubes, etc.

A distribution of employees according to average weekly hours shows that in 1935 there was a large percentage of part-time workers, since 29.1 percent of all wage earners had a workweek of less than 24 hours. Those working 24 and under 40 hours formed 41.3 percent and those working exactly 40 hours 18.4 percent of the total. Thus 88.8 percent worked a week of 40 hours or less. A large majority of

those who had a week in excess of 40 hours worked a week of exactly 48 hours. Nearly one-half of the workers in this latter class were found among five occupations, namely, supervisory and clerical employees and the unskilled occupations of shearmen's helpers, common laborers, and miscellaneous labor.

A comparison of the 1933 figure in the Eastern district with the 1935 figure in the Eastern and Southern districts combined shows that employees in plate mills gained very little in working time between the 2 years, as they averaged 25.3 hours per week in 1933 as against 27.5 in 1935. However, in the Pittsburgh and Great Lakes and Middle West districts, conditions in 1935 show a very decided improvement over what they were in 1933, as the weekly hours of employees in the former district increased from 11.1 to 30.2 and in the latter district from 13.0 to 29.0. Of the various districts, the weekly hours in the Pittsburgh district were the lowest in 1933 and the highest in 1935.

Table 10.—Average Weekly Hours of Wage Earners in Plate Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				1935 [1]					
	1933		1935		Eastern and Southern districts		Pittsburgh district		Great Lakes and Middle West district	
	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours	Number of wage earners	Average weekly hours
Charging-crane and charging-machine operators	77	17.0	88	29.0	36	28.7	25	31.6	27	27.0
Heaters	89	15.9	77	29.5	33	28.1	27	33.1	17	26.6
Heaters' helpers	69	16.8	60	29.1	21	27.7	30	27.8	[2]	[2]
Roll engineers, electric	30	[2]	38	32.9	13	30.9	10	35.6	15	32.7
Roll engineers, steam	36	20.3	13	28.8	[2]	[2]	[2]	[2]	[2]	[2]
Rollers, sheared-plate	36	19.4	36	31.0	13	29.8	13	30.2	10	33.8
Screwmen, sheared-plate	40	17.2	37	27.5	15	27.5	13	30.2	[2]	[2]
Hookmen, sheared-plate	84	13.4	87	29.2	27	28.0	35	33.4	25	24.8
Rollers, universal plate	13	20.1	15	29.2	[2]	[2]	[2]	[2]	[2]	[2]
Transfer-table operators	82	[3]	80	26.6	16	21.8	19	33.9	45	25.2
Cold-roll operators	60	[3]	64	28.8	25	26.4	18	32.3	21	28.7
Layers-out and markers	114	[3]	103	29.9	49	26.9	27	34.5	27	30.9
Layers-out and markers' assistants	94	[3]	86	26.3	18	17.8	42	30.2	26	25.9
Shearmen	136	15.2	155	29.7	51	28.3	50	29.5	54	31.3
Shearmen's helpers	488	13.8	444	27.8	162	28.1	197	28.2	85	26.1
Inspectors, product	109	[3]	156	31.2	59	28.6	54	33.9	43	31.5
Common laborers	338	12.5	381	23.7	110	24.2	168	23.0	103	24.3
Miscellaneous labor [4]	419	[3]	588	28.9	144	25.5	260	29.5	184	30.6
Clerical, plant	150	[3]	471	30.6	159	25.3	173	34.3	139	32.1
Supervisory, plant	135	[3]	130	39.2	59	35.1	44	43.0	27	41.8
Other direct labor [5]	282	[3]	291	27.0	130	27.3	96	26.5	65	27.0
Other indirect labor [5]	50	[3]	107	29.1	35	30.6	25	33.3	47	25.9

[1] No averages by districts are available for 1933.
[2] Not a sufficient number reported to present averages.
[3] No data available.
[4] See footnote 3, p. 1619.
[5] See footnote 4, p. 1916.

Due to the low operating schedules prevailing at the time of the 1933 survey, the employees in only two occupations shown in table 10—steam roll engineer and rollers on universal plate mills—averaged

as much as 20 hours per week. This figure is high, however, when compared with averages in the same year of 13.4 hours for hookmen on sheared-plate mills, 13.8 hours for shearmen's helpers, and 12.5 hours for common laborers. Improved industrial conditions in this industry raised the average for this department from 15.3 hours in 1933 to 29.0 hours in 1935, and, as a result, the lowest average for any occupation in 1935 for all districts combined was 23.7 hours for common laborers. From the above figures, it may be seen that the shortest working time in each year was that of common laborers. There was very little difference in the average hours of rollers on the two types of mills, as those on sheared-plate mills worked 31.0, as against 29.2 for rollers on universal mills.

Weekly Earnings

AN INCREASE of 89.5 percent in the working time of employees, coupled with a gain of 38.8 percent in their average hourly earnings, lifted the average weekly earnings in this department from $6.88 in 1933 to $18.04 in 1935. The latter figure is considerably less than that for either blooming or rail mills, but slightly higher than that for billet mills. Low as the average was for the country as a whole in 1933, the workers in the Pittsburgh district fared even worse, as their weekly earnings amounted to the extremely low figure of $5.61. Workers in the Great Lakes and Middle West district were but little better off, their weekly earnings amounting to only $6.32. While employees in the Eastern district in 1933 received an average of $9.74 per week, they had to work 25.3 hours to earn it, as against 11.1 hours in Pittsburgh and 13.0 hours in the Great Lakes and Middle West districts. A comparison of the 1933 district averages with those for 1935 shows that in the Pittsburgh district they have risen 252 percent and now amount to $19.73, in the Great Lakes and Middle West district 186 percent and now amount to 18.09, and in the Eastern and Southern districts combined 64 percent and now are $16.01. Despite the gains which have been made since 1933, the earnings of workers in this department in 1935 are still comparatively low, when contrasted with the March 1935 average of $23.45 [15] for blast furnaces, steel works, and rolling-mill employees.

A distribution of employees by weekly earnings shows that for all districts combined 29.8 percent received less than $12. Another 23.8 percent received $12 and under $18. Thus, it may be seen that slightly over one-half of the workers were paid under $18 during the week covered by this survey. Those who were paid $18 and under $24 formed 21.3 percent of the total, while those with earnings of $24 and under $30 formed 14.6 percent. The remaining 10.5 percent

[15] See trend-of-employment figures in Monthly Labor Review, June 1935 (p. 1601).

paid $30 and over were more or less evenly distributed among the various classes up to $52 and over.

Table 11.—Average Weekly Earnings of Wage Earners in Plate Mills, by Occupation and District, 1933 and 1935

Occupation	Total, all districts				1935 [1]					
	1933		1935		Eastern and Southern districts		Pittsburgh district		Great Lakes and Middle West district	
	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings	Number of wage earners	Average weekly earnings
Charging-crane and charging-machine operators	77	$8.57	88	$19.86	36	$19.78	25	$23.86	27	$16.26
Heaters	89	11.87	77	30.47	33	27.08	27	38.62	17	24.12
Heaters' helpers	69	6.82	60	19.54	21	16.50	30	20.96	[2]	[2]
Roll engineers, electric	30	[3]	38	23.75	13	18.85	10	27.68	15	25.39
Roll engineers, steam	36	9.44	13	17.95	[2]	[2]	[2]	[2]	[2]	[2]
Rollers, sheared-plate	36	17.29	36	42.40	13	38.37	13	42.67	10	47.29
Screwmen, sheared-plate	40	10.83	37	25.82	15	21.48	13	33.50	[2]	[2]
Hookmen, sheared-plate	84	6.39	87	20.22	27	18.29	35	24.22	25	16.69
Rollers, universal-plate	13	16.41	15	36.62	[2]	[2]	[2]	[2]	[2]	[2]
Transfer-table operators	82	[3]	80	14.20	16	10.55	19	19.32	45	13.33
Cold-roll operators	60	[3]	64	16.96	25	13.84	18	21.40	21	16.87
Layers-out and markers	114	[3]	103	20.43	49	15.32	27	29.81	27	20.31
Layers-out and markers' assistants	94	[3]	86	14.79	18	8.47	42	17.53	26	14.75
Shearmen	136	7.98	155	23.46	51	19.39	50	27.67	54	23.39
Shearmen's helpers	488	5.51	444	16.15	162	15.43	197	17.42	85	14.55
Inspectors, product	109	[3]	156	19.40	59	16.86	54	21.80	43	19.87
Common laborers	338	3.98	381	11.09	110	9.87	168	11.12	103	12.33
Miscellaneous labor [4]	419	[3]	588	15.10	144	11.59	260	16.02	184	16.55
Clerical, plant	150	[3]	471	18.99	159	14.40	173	22.49	139	19.89
Supervisory, plant	135	[3]	130	29.78	59	25.49	44	33.53	27	33.04
Other direct labor [5]	282	[3]	291	17.03	130	15.72	96	17.84	65	18.46
Other indirect labor [5]	50	[3]	107	18.23	35	19.08	25	21.83	47	15.68

[1] No averages by districts are available for 1933.
[2] Not a sufficient number reported to present averages.
[3] No averages available.
[4] See footnote 3, p. 1619.
[5] See footnote 4, p. 1619.

Table 11 shows that the average weekly earnings in 1933 for all districts combined ranged from the extremely low amount of $3.98 for common laborers to a high of only $17.29 for the skilled occupation of sheared-plate-mill rollers. Occupations other than common laborers earning less than $10 a week in 1933 were the skilled ones of charging-crane and charging-machine operators, steam roll engineers, and shearmen, the semiskilled occupations of heaters' helpers and hookmen, and the unskilled occupation of shearmen's helpers. Due to higher average hourly earnings, as well as a longer workweek, no occupation in 1935 averaged less than $11 per week, and 9 averaged more than $20. Between the 2 years, the greatest percentage of gain (216) went to the semiskilled occupation of hookmen, and the least (90) to the skilled occupation of steam roll engineers. Among the remaining occupations for which averages are shown for both years, the gains varied from 123 percent for universal-plate-mill rollers to 194 percent for shearmen. In 1933, the differential between

the weekly earnings of sheared-plate-mill rollers and common laborers was $13.31, as compared with $31.31 in 1935. Thus, despite an increase of 179 percent in the weekly earnings of common laborers, as against 145 percent for rollers, the margin in earnings between the two occupations widened. The same condition prevails between the occupations of heaters and their helpers. This might justify the idea that possibly the lower-paid occupations have not been afforded as great an opportunity to share in the benefits accruing from improved industrial conditions as the higher-paid workers.

Billet Mills

Average Hourly Earnings

THE average hourly earnings of workers in this department amounted to 64.3 cents in 1935. As this average approximates that of 66.6 cents for blooming mills, it is fairly safe to assume that both have increased by about the same percentage since 1933. The two departments are closely related, as the reduction of blooms to billets is the next step in the formation of certain finished products. However, since no data for 1933 are available for billet mills, no actual figures can be given. In order to avoid the possible identification of the earnings of workers in certain plants, the totals and averages for this department are shown only for the country as a whole.

There was a well-defined tendency toward concentration of the workers in this department in the wage class of 50 and under 60 cents, as 48.5 percent of the total number covered were in this wage class. Those who earned under 50 cents were 14.7 percent, while those receiving 60 cents and over formed 36.8 percent of the total wage earners. Of the 201 workers who were paid under 50 cents, 64 percent were found in three unskilled occupations,[16] namely, common laborers, chippers and grinders, and hotbed men. The higher wage classes were made up mainly of such skilled occupations as rollers, assistant rollers, guide setters, tilting-table operators, shearmen, etc.

Table 12 shows the averages for 16 occupations and 2 occupational groups. The averages among the 16 occupations varied from 46.8 cents per hour for common laborers to $1.187 for the skilled occupation of rollers. Other skilled occupations averaging over $1 per hour were assistant rollers, guide setters, and tilting-table operators. The average of 46.8 cents for common laborers in this department is fractionally higher than in the open-hearth-furnaces department, but nearly 2 cents below that in the Bessemer department.

[16] The skilled occupations are rollers, assistant rollers, steam and electric engineers, guide setters, tilting-table operators, shearmen, and inspectors; the semiskilled occupation is transfer-table operators; and the unskilled occupations are hotbed men, chippers and grinders, shearmen's helpers, common laborers, and miscellaneous labor. Plant clerical and supervisory employees and other direct and indirect labor have not been classed as to skill.

Table 12.—Average Hourly Earnings of Wage Earners in Billet Mills, by Occupation, 1935

Occupation	Number of wage earners	Average hourly earnings	Occupation	Number of wage earners	Average hourly earnings
Rollers	28	$1.187	Shearmen's helpers	13	$0.649
Assistant rollers	12	1.001	Inspectors, product	45	.640
Roll engineers, electric	11	.603	Chippers and grinders	437	.580
Roll engineers, steam	22	.700	Common laborers	66	.468
Guide setters	22	1.017	Miscellaneous labor [1]	115	.538
Tilting-table operators	26	1.040	Clerical, plant	98	.644
Transfer-table operators	28	.555	Supervisory, plant	33	.861
Hotbed men	75	.579	Other direct labor [2]	40	.833
Shearmen	29	.789	Other indirect labor [2]	42	.669

[1] See footnote 3, p. 1619.
[2] See footnote 4, p. 1619.

Where these mills are operated in direct connection with blooming mills, they do not require heating furnaces. As most of the mills covered by this survey are in that classification, the number of heaters and heaters' helpers reported was not sufficiently large to permit the presentation of averages. Chippers and grinders, constituting about one-third of the total employees covered, earned an average of 58 cents per hour.

Weekly Hours

THE average weekly hours of employees in billet mills were 27.5 in 1935. This figure is considerably below that of 35.5 hours for blooming-mill workers. This is not surprising, as billet mills are only one of the outlets for the output of blooming mills; however, where a billet mill is the sole outlet of a blooming mill, each would operate the same number of hours per week.

During the week covered by the 1935 survey, 40.2 percent of the employees worked a week of less than 24 hours, and an additional 27.5 percent, a week of 24 and under 40 hours. Thus, slightly over two-thirds of the employees had a week of less than 40 hours. Those who worked a week of exactly 40 hours amounted to 23.4 percent. Almost one-half of the remaining 8.9 percent working a week of over 40 hours were found in two occupations, namely, chippers and grinders and plant supervisory employees.

The average weekly hours of the various occupations in 1935 ranged from 16.5 for the skilled occupation of steam roll engineers to 38.4 for plant supervisory employees. Other occupations than the former having a week of less than 20 hours were assistant rollers and hotbed men. The comparatively short workweek for steam roll engineers and assistant rollers was due mainly to the short working time in one southern plant, while that of hotbed men was influenced by the short working time of certain plants in the Pittsburgh district.

Common laborers worked an average of only 22.8 hours, or nearly 5 hours less than the average for the department as a whole. Among the other occupations not already mentioned, the average hours ranged from 21.3 for transfer-table operators to 36.0 for shearmen's helpers. Within these two limits may be found rollers with an average of 28.3 hours, guide setters with 26.6 hours, chippers and grinders with 30.1 hours, inspectors with 32.7 hours, and shearmen with 27.5 hours.

Weekly Earnings

DUE to the small number of weekly hours of work available for employees in this department, they earned an average of only $17.68. The distribution of employees around this average shows that 32.4 percent earned less than $10. This amount takes on an added significance when one considers that 38.0 percent of these same workers earned under $6. Those receiving $10 and under $20 constituted 28.0 percent of the total, thus making 60.4 percent receiving less than $20. In the class of $20 to $28 there appeared 26.4 percent of the employees. This leaves only 13.2 percent receiving $28 and over, and of this latter group, very few earned in excess of $40.

The average weekly earnings by occupation ranged from $10.12 for the unskilled occupation of hotbed men to $34.98 for the skilled occupation of tilting-table operators. It was to be expected that the weekly earnings of rollers would exceed those of any other occupation, on account of the skill required to fill this position, but they received $33.61, or $1.37 less than tilting-table operators. This was due to a difference of 5.3 hours per week in the working time of employees in these two occupations. Shearmen's helpers earned $23.36, as against $21.67 for shearmen. This difference in favor of shearmen's helpers is also due to the time element, as shearmen had considerably higher average hourly earnings than their helpers. Other occupations, than hotbed men, earning less than $12 per week were steam roll engineers, transfer-table operators, and common laborers, which received respectively $11.57, $11.83, and $10.66. Chippers and grinders in this department were paid an average of $17.45, as compared with $20.97 in blooming mills. This differential of $3.52 was a result of a longer workweek in the latter department, as the average hourly earnings were identical in the two departments.

Average Annual Earnings in Manufacturing in Ohio, 1933 and 1934: Part I [1]

THIS article presents a summary for manufacturing industries, as a whole, in Ohio and covers in more detail the following seven manufacturing groups: Chemicals and allied products; food and kindred products; iron and steel and their products; leather and leather products; liquors and beverages; lumber and lumber products; and metals and metal products, other than iron and steel. The remaining seven industry groups in manufacturing will be covered in a later article.

In manufacturing industries, as a whole, in Ohio, considering all occupation groups combined (except superintendents and managers), the average number of persons employed in 1934 was 91,617 greater than in 1933 and 207,015 less than in 1929, total wage and salary payments were $163,865,397 greater than in 1933 and $563,934,945 less than in 1929, and the average annual payment was $120 higher than in 1933 and $410 lower than in 1929.

The average annual wage and salary payment to wage earners was $1,080 in 1934, $950 in 1933, and $1,499, in 1929. The average number of wage earners employed was 533,674 in 1934, 449,378 in 1933, and 718,108 in 1929. Total wage and salary payments to wage earners were $576,490,632 in 1934, $426,727,589 in 1933, and $1,076,213,730 in 1929.

For wage earners, the increases from 1933 to 1934 were 84,296 in average number employed, $149,763,043 in total wage and salary payments, and $130 in the average annual payment. The decreases from 1929 to 1934 were 184,434 in average number employed, $499,723,098 in total wage and salary payments, and $419 in the average annual payment.

Table 1 shows for manufactures as a whole, and also for each of the seven manufacturing groups included in this article, the average annual wage and salary payment to wage earners for each year, 1929 to 1934. In each of the seven manufacturing groups, employees reported as wage earners comprised more than 80 percent of the total reported each year (1933 and 1934), except for 1933 in one group.

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[1] By Fred C. Croxton, Columbus, Ohio, and Frank C. Croxton, Whiting, Ind. A series of articles on average annual wage and salary payments in Ohio published in the U. S. Bureau of Labor Statistics Monthly Labor Review beginning in January 1934, covered the years 1916 to 1932 for most industries, and 1918 to 1932 for construction and for all industries combined. A second series beginning in the Review for April 1935, covered 1929 to 1933. A third series beginning in March 1936, covers 1933 and 1934. The first series was also published in U. S. Bureau of Labor Statistics Bulletin No. 613. Fluctuation of employment in Ohio is shown in the Monthly Labor Review for January 1936.

Table 1.—Average Annual Wage and Salary Payments to Wage Earners in Manufactures in Ohio, 1929 to 1934, by Industry Group

Industry group	1929	1930	1931	1932	1933	1934
Manufactures [1]	$1,499	$1,365	$1,185	$956	$950	$1,080
Chemicals and allied products	1,475	1,462	1,370	1,220	1,121	1,178
Food and kindred products	1,331	[2] 1,363	1,212	1,067	947	1,030
Iron and steel and their products	1,705	1,541	1,260	959	1,004	1,135
Leather and leather products	1,096	922	864	690	713	853
Liquors and beverages	1,484	1,470	1,396	1,200	1,734	1,263
Lumber and lumber products	1,275	1,178	1,047	834	745	820
Metals and metal products, other than iron and steel	1,434	1,355	1,155	973	919	1,002

[1] "Manufactures" includes the 7 industry groups shown in this table and also 7 additional groups which will be covered in a later article.

[2] Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

Table 2 presents data relating to employment and wage and salary payments in 1933 and 1934 [2] for each of the three general occupation groups in manufactures, as a whole, and in each of the seven manufacturing groups. Table 3 presents data for wage earners only in individual industries under each of the seven groups. The industries shown separately are those which employed in Ohio (according to reports received from employers) approximately 1,000 or more wage earners, or which paid wage earners a total of approximately $1,000,000 or more in one or more years covered by the several series of articles published in the Monthly Labor Review.

Under each industry group in table 3 certain individual industries which employ comparatively few persons in Ohio have been combined under the classification "other." The industries so classified are indicated in the Monthly Labor Review for May 1935 (p. 1297). Four industries included in that list, however, are shown separately for 1933 and 1934, due to the growth of such industries in Ohio. Those industries are bone, carbon, and lampblack; liquors, malt; caskets, metal; and smelting and refining, aluminum, brass, and copper. Indexes are not shown for group "other." In indicating the number of industries within a manufacturing group, "other" is considered an industry.

In tables 2 and 3 superintendents and managers are included in the section relating to total wage and salary payments only.

The annual reports made by employers,[3] as required by law, to the Ohio Division of Labor Statistics show, among other items, the number of persons employed on the 15th of each month and total wage and salary payments for the year. The average number of employees, shown in this article, was computed by dividing the sum of the monthly figures by 12 and the average annual wage and salary

[2] For data for earlier years, see Monthly Labor Review, April (p. 986) and May 1935 (p. 1288) and U. S. Bureau of Labor Statistics Bulletin No 613.

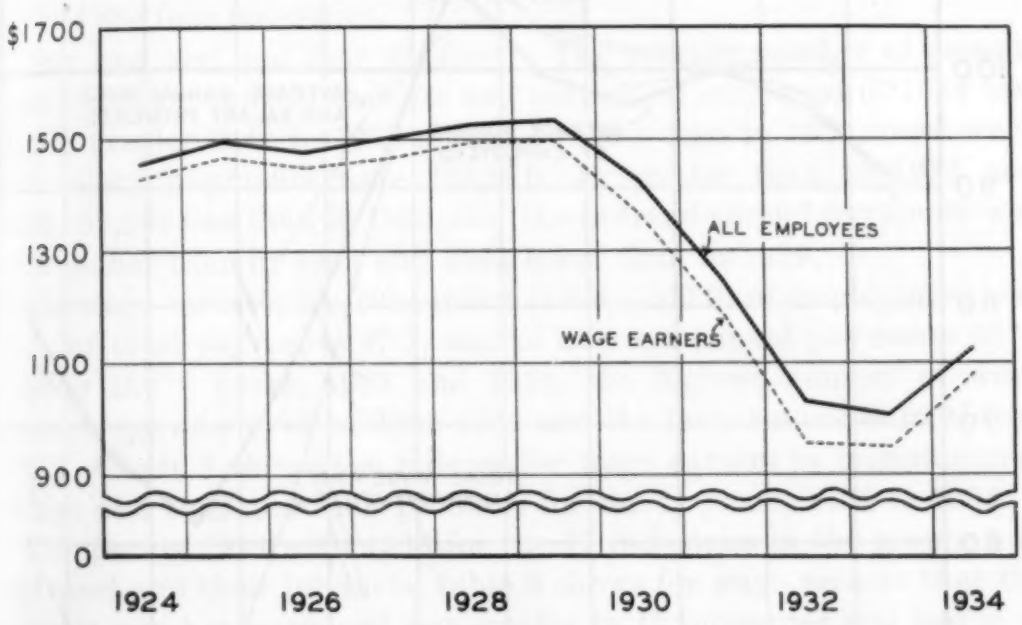
[3] For source and scope of the material for these series of articles, see Monthly Labor Review, April 1935 (p. 986).

payment was computed by dividing the total wage and salary payment for the year by the average number of persons employed.

The average annual payments shown should not be taken as exact measures but as approximate figures. It should be borne in mind that average annual wage and salary payments as here computed do not show full-time earnings, as data concerning part-time and overtime work are not available. Average full-time earnings may be either greater or less than the computed average. The changes in the averages from year to year, also, do not afford any measure of changes in wage or salary scales or rates of pay.

In supplying data concerning total wage and salary payments, employers were requested to report total wage and salary payments in dollars, including bonuses and premiums, and value of board and lodging furnished. Employers were also instructed not to include

CHART 1.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN MANUFACTURES, 1924 TO 1934



salaries of officials. Data, other than total wage and salary payments, were not requested concerning superintendents and managers.

For manufactures, as a whole, in Ohio chart 1 shows the average annual wage and salary payments to wage earners and to all employees (except superintendents and managers) for 1924 to 1934. Chart 2 shows indexes (1926=100.0) of employment and total and average annual wage and salary payments for the three occupation groups combined—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling).

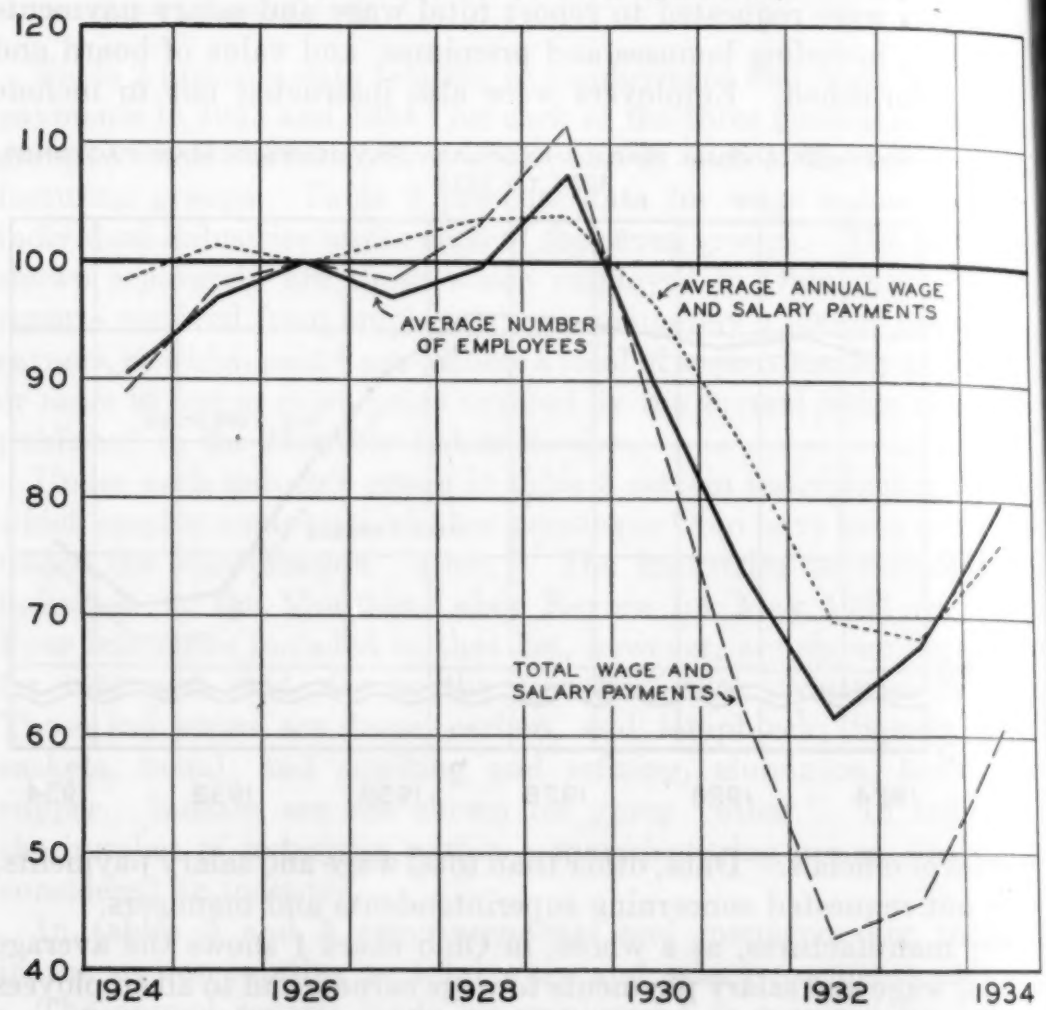
Chemicals and allied products.—The average number of persons (not including superintendents and managers) employed in 1934 was 2,904 greater than in 1933 and 2,488 less than in 1929; total wage and salary payments were $4,999,610 greater than in 1933 and $9,859,406

less than in 1929; and the average annual payment was $63 higher than in 1933, and $256 lower than in 1929.

For wage earners, the 1934 index (1926=100.0) of employment was 100.0, of total payments 81.9, and of average annual payments 81.9. During the 2 years, 1933 and 1934, the highest number of wage earners was employed in September 1934 and the lowest number in March 1933.

Comparing 1934 with 1933 for the nine industries in this group, table 3 shows for wage earners that the average number employed

CHART 2.—INDEXES OF EMPLOYMENT AND OF ANNUAL WAGE PAYMENTS IN MANUFACTURES, 1924 TO 1934 (1926=100)



and total payments increased in each of the nine industries and average annual payments increased in eight.

Indexes are shown for wage earners in seven industries. The 1934 index of employment was above the 1926 level (100.0) in three industries. The 1934 index of average annual payments was below 85 in six of the seven industries.

Food and kindred products.—The average number of persons (not including superintendents and managers) employed in 1934 was 5,180 greater than in 1933 and 951 greater than in 1929, total wage and

salary payments were $8,350,540 greater than in 1933, and $13,183,983 less than in 1929, and the average annual payment was $77 higher than in 1933 and $337 lower than in 1929.

For wage earners the 1934 index (1926=100.0) of employment was 117.1, of total payments 98.9, and of average annual payments 84.5. During the 2 years, 1933 and 1934, the highest number of wage earners was employed in September 1934 and the lowest number in March 1933.

Comparing 1934 with 1933 for the six industries (where comparisons of wage earners may be made) in this group, table 3 shows that the average number employed was greater in four industries and less in two, total payments were greater in five and less in one, and the average annual payment was higher in each of the six industries.

Indexes are shown for wage earners in four industries. The 1934 index of employment was above the 1926 level (100.0) in three industries. The 1934 index of average annual payments was below 83 in each of the four industries.

Iron and steel and their products.—The average number of persons (not including superintendents and managers) employed in 1934 was 31,519 greater than in 1933 and 91,246 less than in 1929, total wage and salary payments were $55,970,125 greater than in 1933 and $258,362,239 less than in 1929, and the average annual payments was $125 higher than in 1933 and $553 lower than in 1929.

For wage earners, the 1934 index (1926=100.0) of employment was 69.0, of total payments 47.7, and of average annual payments 69.2. During the 2 years, 1933 and 1934, the highest number of wage earners was employed in June 1934 and the lowest number in March 1933. Chart 3 shows the indexes for wage earners in manufactures of iron and steel and their products for the 11 years, 1924 to 1934.

Comparing 1934 with 1933 for the 17 industries in the group, iron and steel and their products, table 3 shows for wage earners that the average number employed was greater in 13 industries and less in 4, total payments were greater in 16 and less in 1, and the average annual payment was higher in each of the 17 industries.

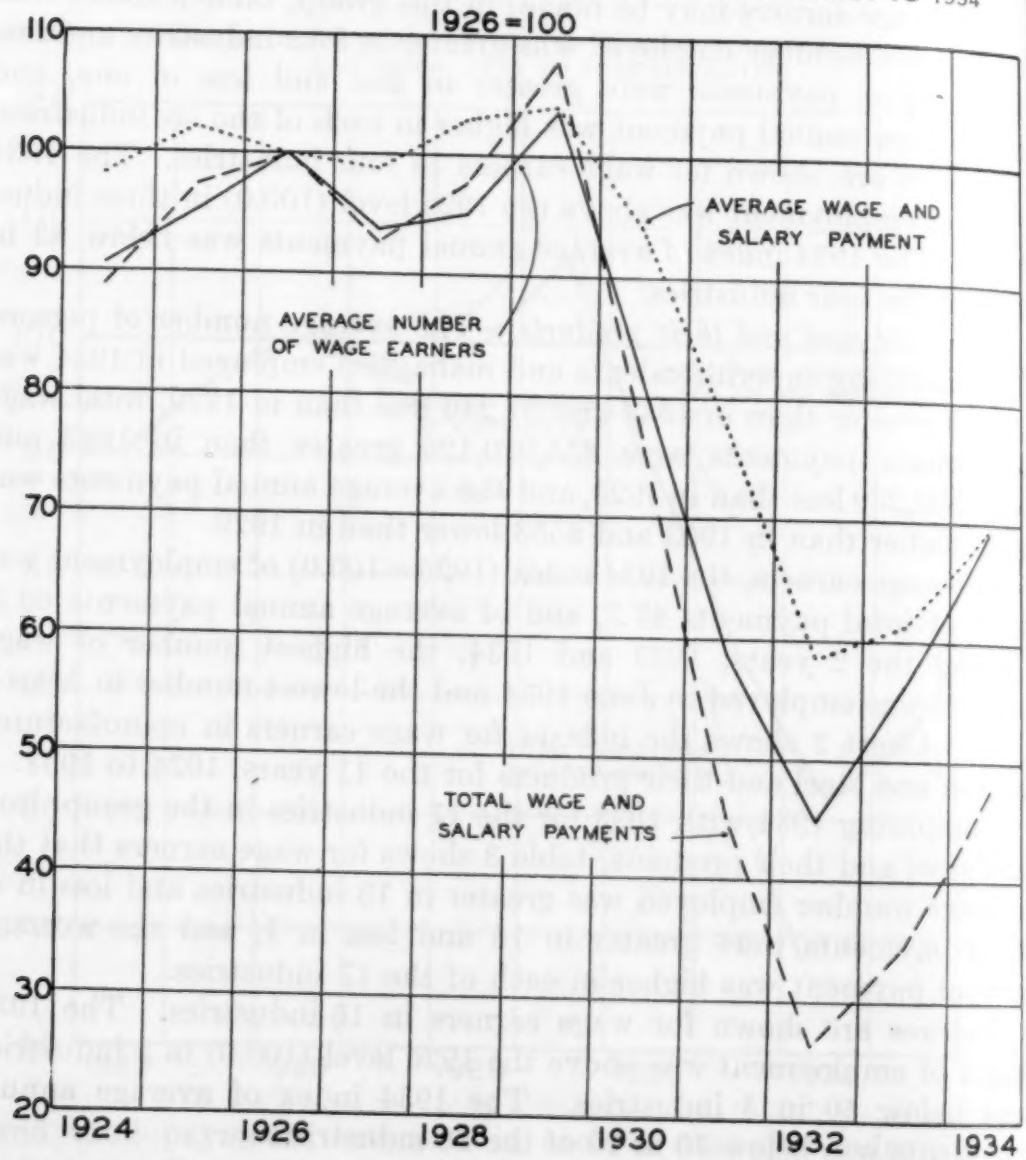
Indexes are shown for wage earners in 16 industries. The 1934 index of employment was above the 1926 level (100.0) in 3 industries and below 50 in 5 industries. The 1934 index of average annual payments was below 70 in 10 of the 16 industries.

Leather and leather products.—The average number of persons (not including superintendents and managers) employed in 1934 was 1,472 greater than in 1933 and 1,029 less than in 1929, total wage and salary payments were $3,166,176 greater than in 1933 and $4,950,564 less than in 1929, and the average annual payment was $135 higher than in 1933 and $246 lower than in 1929.

For wage earners, the 1934 index (1926=100.0) of employment was 89.9, of total payments 69.5, and of average annual payments 77.3. During the 2 years, 1933 and 1934, the highest number of wage earners was employed in August 1934 and the lowest number in November 1933.

Comparing 1934 with 1933 for the three industries in this group, table 3 shows for wage earners that the average number employed

CHART 3.—INDEXES OF EMPLOYMENT AND OF ANNUAL WAGE PAYMENTS IN MANUFACTURES OF IRON AND STEEL AND THEIR PRODUCTS, 1924 TO 1934



and total wage and salary payments increased in each of the three industries, and average annual payments increased in two of the three.

Indexes are shown for wage earners in two industries. The 1934 index of employment was above the 1926 level (100.0) in one industry. The 1934 index of average annual payments was below 80 in each of the 2 industries.

Liquors and beverages.—In this industry group the repeal of the prohibition amendment has had a marked effect on number of employees and on total wage and salary payments. The average number of persons (not including superintendents and managers) employed in 1934 was 2,190 greater than in 1933 and 2,763 greater than in 1929, total wage and salary payments were $2,863,113 greater than in 1933 and $2,982,138 greater than in 1929, and the average annual payment was $22 higher than in 1933 and $248 lower than in 1929.

For wage earners the 1934 index (1926=100.0) of employment was 208.6, of total payments 184.5, and of average annual payments 88.4. During the 2 years 1933 and 1934 the highest number of wage earners was employed in July 1934 and the lowest number in February 1933.

Comparing 1934 with 1933 for the three industries, table 3 shows for wage earners that the average number employed and total payments increased in each of the three industries and the average annual payment was higher in two of the three. Indexes are shown for wage earners in but one industry.

Lumber and lumber products.—The average number of persons (not including superintendents and managers) employed in 1934 was 1,478 greater than in 1933 and 10,281 less than in 1929, total wage and salary payments were $2,331,813 greater than in 1933 and $21,180,822 less than in 1929, and the average annual payment was $71 higher than in 1933 and $462 lower than in 1929.

For wage earners the 1934 index (1926=100.0) of employment was 58.7, of total payments 38.0, and of average annual payments 64.8. During the 2 years, 1933 and 1934, the highest number of wage earners was employed in September 1933 and the lowest number in March 1933. Chart 4 shows the indexes for lumber and lumber products for the 11 years, 1924 to 1934.

Comparing 1934 with 1933 for the eight industries in the group, lumber and lumber products, table 3 shows for wage earners that the average number employed and total payments increased in each of the eight industries and the average annual payment was higher in seven industries and lower in one.

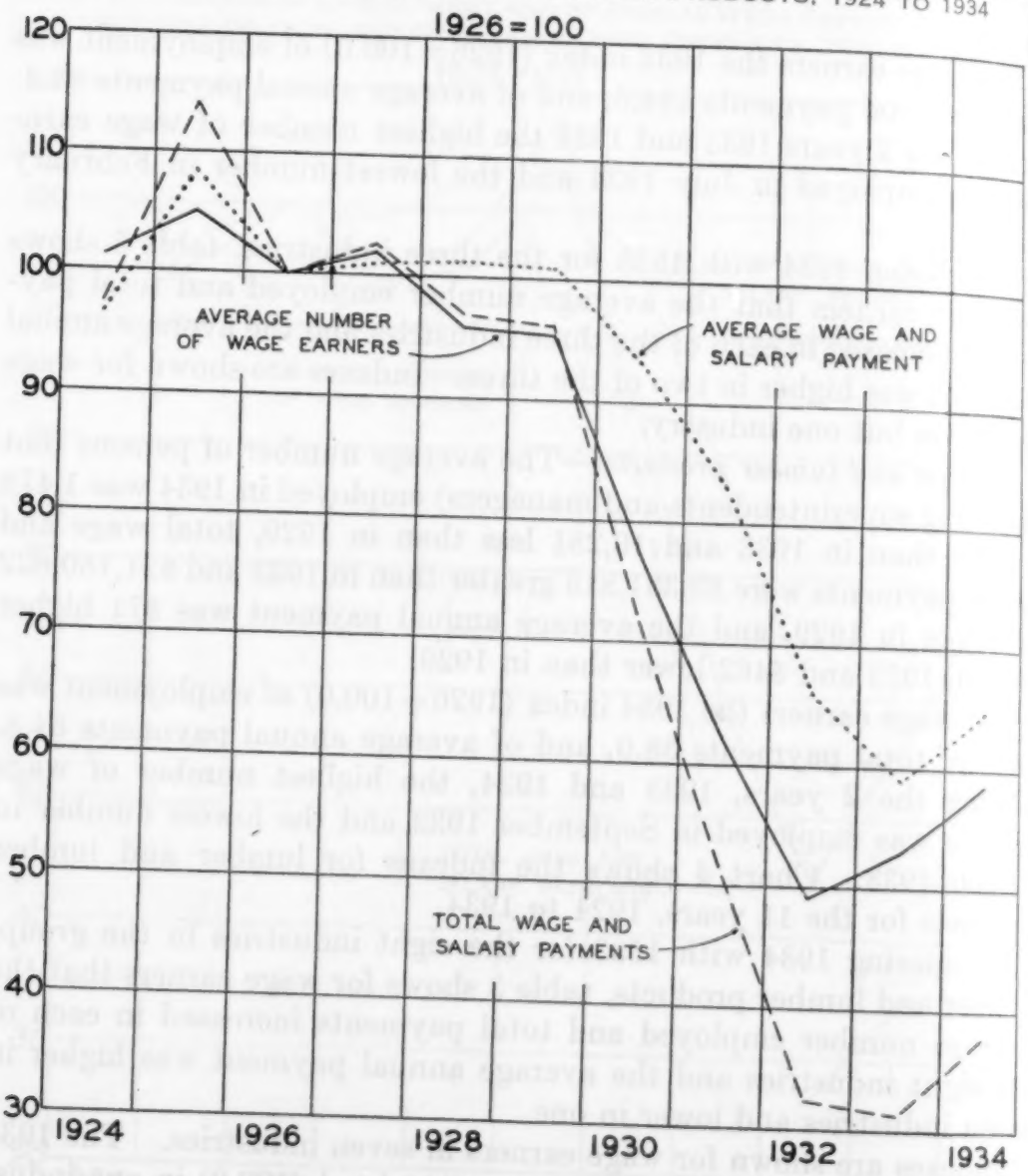
Indexes are shown for wage earners in seven industries. The 1934 index of employment was above the 1926 level (100.0) in one industry and below 80 in five. The 1934 index of average annual payments was below 70 in four of the seven industries.

Metals and metal products other than iron and steel.—The average number of persons (not including superintendents and managers) employed in 1934 was 9,440 greater than in 1933 and 743 less than in 1929, total wage and salary payments were $12,624,966 greater than in 1933 and $18,724,465 less than in 1929, and the average annual payment was $82 higher than in 1933 and $420 lower than in 1929.

For wage earners the 1934 index (1926=100.0) of employment was 114.3, of total payments 83.4, and of average annual payments 73.0. During 1933 and 1934 the highest number of wage earners was employed in April 1934 and the lowest number in January 1933.

Comparing 1934 with 1933 for the nine industries in this group, table 3 shows for wage earners that the average number employed

CHART 4.—INDEXES OF EMPLOYMENT AND OF ANNUAL WAGE PAYMENTS IN MANUFACTURES OF LUMBER AND LUMBER PRODUCTS, 1924 TO 1934



was greater in eight industries and total payments and average annual payments were greater in each of the nine industries.

Indexes are shown for wage earners in six industries. The 1934 index of employment was above the 1926 level (100.0) in three industries and below 20 in one industry. The 1934 index of average annual payments was below 75 in four of the six industries.

Table 2.—Employment and Earnings in Manufactures in Ohio, 1933 and 1934, by Industry Groups

[Data for earlier years were published in the Monthly Labor Review, April and May 1935, and in Bulletin No. 613]

Item	Manufactures[1]		Chemicals and allied products		Food and kindred products	
	1933	1934	1933	1934	1933	1934
Number of establishments	8,755	8,848	424	431	1,550	1,583
Average number employed:						
Wage earners	449,378	533,674	16,574	19,105	32,944	37,740
Bookkeepers, stenographers, and office clerks	53,642	60,556	4,204	4,560	3,278	3,629
Salespeople (not traveling)	4,955	5,362	150	167	1,686	1,719
Total	507,975	599,592	20,928	23,832	37,908	43,088
Total payments to—						
Salespeople (not traveling)	$7,248,014	$7,736,596	$233,422	$245,525	$1,758,436	$1,901,587
Wage earners	426,727,589	576,490,632	18,572,810	22,511,704	31,211,706	38,869,357
Bookkeepers, stenographers, and office clerks	76,595,893	90,209,665	6,280,418	7,329,031	3,892,811	4,442,549
Subtotal	510,571,496	674,436,893	25,086,650	30,086,260	36,862,953	45,213,493
Superintendents and managers	31,834,851	34,699,136	2,792,577	2,991,728	2,675,496	2,732,998
Grand total	542,406,347	709,136,029	27,879,227	33,077,988	39,538,449	47,946,491
Average annual payments to—						
Wage earners	950	1,080	1,121	1,178	947	1,030
Bookkeepers, stenographers, and office clerks	1,428	1,490	1,494	1,607	1,188	1,224
Salespeople (not traveling)	1,463	1,443	[2]	[2]	1,043	1,106
All employees[3]	1,005	1,125	1,199	1,262	972	1,049
Increase[4] from 1933 to 1934 in—						
Average number employed:						
Number		91,617		2,904		5,180
Percent		18.0		13.9		13.7
Total payments:						
Amount (dollars)		163,865,397		4,999,610		8,350,540
Percent		32.1		19.9		22.7
Average annual payments:						
Amount		$120		$63		$77
Percent		11.9		5.3		7.9
Indexes of wage earners (1926=100.0):						
Average number employed	66.9	79.4	86.7	100.0	102.2	117.1
Total payments	43.8	59.2	67.6	81.9	79.4	98.9
Average annual payments	65.6	74.6	78.0	81.9	77.7	84.5
Number of wage earners employed on 15th of month:						
January	369,614	483,091	14,843	17,729	29,463	34,413
February	378,986	521,920	14,726	18,358	28,747	34,437
March	354,393	549,435	14,382	18,949	28,509	35,000
April	376,843	555,961	15,149	19,957	29,446	35,363
May	408,336	583,162	15,710	19,877	30,112	36,061
June	449,336	579,978	16,001	19,456	31,900	37,489
July	480,706	526,016	16,631	19,191	31,983	36,886
August	520,809	526,355	17,995	19,222	34,466	39,490
September	532,138	515,376	19,071	20,016	40,875	45,407
October	525,420	517,082	18,523	19,076	39,108	42,245
November	501,041	514,644	18,125	18,783	35,771	38,531
December	494,917	531,069	17,726	18,644	34,950	37,563
Variation from maximum:						
Number	177,745	100,071	4,689	2,287	12,366	10,994
Percent	33.4	17.2	24.6	11.4	30.3	24.2

See footnotes at end of table.

Table 2.—Employment and Earnings in Manufactures in Ohio, 1933 and 1934, by Industry Groups—Continued

Item	Iron and steel and their products		Leather and leather products		Liquors and beverages	
Number of establishments	1,528	1,552	107	106	162	186
Average number employed:						
Wage earners	134,102	163,979	13,130	14,481	2,361	4,227
Bookkeepers, stenographers, and office clerks	15,332	16,943	793	906	340	555
Salespeople (not traveling)	300	331	24	32	118	227
Total	149,734	181,253	13,947	15,419	2,819	5,009
Total payments to—						
Salespeople (not traveling)	$595,878	$672,447	$45,742	$54,152	$204,562	$392,829
Wage earners	134,667,037	186,182,818	9,364,101	12,351,096	2,912,833	5,336,788
Bookkeepers, stenographers, and office clerks	22,912,156	27,289,931	930,630	1,101,401	424,805	675,696
Subtotal [3]	158,175,071	214,145,196	10,340,473	13,506,649	3,542,200	6,405,313
Superintendents and managers	8,886,444	9,541,655	479,651	582,407	305,778	426,285
Grand total	167,061,515	223,686,851	10,820,124	14,089,056	3,847,978	6,831,598
Average annual payments to—						
Wage earners	1,004	1,135	713	853	1,234	1,263
Bookkeepers, stenographers, and office clerks	1,494	1,611	1,174	1,216	1,249	1,217
Salespeople (not traveling)	1,986	2,032	(2)	(2)	(2)	(2)
All employees [3]	[4] 1,056	1,181	741	876	1,257	1,279
Increase [4] from 1933 to 1934 in—						
Average number employed:						
Number	----------	31,519	----------	1,472	----------	2,190
Percent	----------	21.0	----------	10.6	----------	77.7
Total payments:						
Amount	----------	$55,970,125	----------	$3,166,176	----------	$2,863,113
Percent	----------	35.4	----------	30.6	----------	80.8
Average annual payments:						
Amount	----------	$125	----------	$135	----------	$22
Percent	----------	11.8	----------	18.2	----------	1.8
Indexes of wage earners (1926=100.0):						
Average number employed	56.4	69.0	81.5	89.9	116.5	208.6
Total payments	34.5	47.7	52.7	69.5	100.7	184.5
Average annual payments	61.2	69.2	64.6	77.3	86.4	88.4
Number of wage earners employed on 15th of month:						
January	103,112	150,214	12,144	13,725	1,166	3,227
February	105,933	162,501	12,917	14,432	1,120	3,269
March	94,405	171,037	12,344	14,619	1,127	3,440
April	104,957	177,769	12,398	14,571	1,661	3,729
May	114,214	186,390	12,745	14,742	2,249	4,181
June	130,572	187,713	12,680	15,045	2,823	4,568
July	146,650	161,128	13,915	15,383	3,089	4,840
August	163,598	155,048	15,094	15,660	3,067	4,839
September	166,303	146,228	14,718	13,058	3,093	4,750
October	165,406	151,050	14,113	14,218	3,018	4,654
November	157,718	156,135	11,442	13,407	2,977	4,591
December	156,361	162,536	13,045	14,910	2,939	4,636
Variation from maximum:						
Number	71,898	41,485	3,652	2,602	1,973	1,613
Percent	43.2	22.1	24.2	16.6	63.8	33.3

See footnotes at end of table.

Table 2.—Employment and Earnings in Manufactures in Ohio, 1933 and 1934, by Industry Groups—Continued

Item	Lumber and lumber products		Metals and metal products, other than iron and steel	
Number of establishments	926	897	521	542
Average number employed:				
Wage earners	13,229	14,686	28,555	37,184
Bookkeepers, stenographers, and office clerks	1,361	1,372	3,852	4,652
Salespeople (not traveling)	238	248	113	124
Total	14,828	16,306	32,520	41,960
Total payments to—				
Salespeople (not traveling)	$349,278	$383,427	$215,949	$279,466
Wage earners	9,859,224	12,036,339	26,243,482	37,242,519
Bookkeepers, stenographers, and office clerks	1,575,555	1,696,104	5,230,780	6,793,192
Subtotal	11,784,057	14,115,870	31,690,211	44,315,177
Superintendents and managers	1,104,996	1,119,887	2,421,277	2,860,585
Grand total	12,889,053	15,235,757	34,111,488	47,175,762
Average annual payments to—				
Wage earners	$745	$820	$919	$1,002
Bookkeepers, stenographers, and office clerks	1,158	1,236	1,358	1,460
Salespeople (not traveling)	(2)	(2)	(2)	(2)
All employees [3]	795	866	974	1,056
Increase [4] from 1933 to 1934 in—				
Average number employed:				
Number		1,478		9,440
Percent		10.0		29.0
Total payments:				
Amount		$2,331,813		$12,624,966
Percent		19.8		39.8
Average annual payments:				
Amount		$71		$82
Percent		8.9		8.4
Indexes of wage earners (1926=100.0):				
Average number employed	52.9	58.7	87.8	114.3
Total payments	31.2	38.0	58.8	83.4
Average annual payments	58.9	64.8	66.9	73.0
Number of wage earners employed on 15th of month:				
January	10,367	12,655	22,210	32,192
February	10,658	13,497	23,373	35,655
March	9,868	14,431	22,435	39,089
April	10,993	14,206	23,579	40,585
May	12,303	15,382	25,761	40,061
June	14,009	15,466	28,193	39,438
July	14,473	15,190	30,633	37,930
August	16,107	15,151	33,651	36,854
September	16,175	15,213	34,949	35,616
October	15,812	15,362	34,413	35,641
November	14,519	15,090	32,106	35,767
December	13,469	14,593	31,351	37,385
Variation from maximum—				
Number	6,307	2,811	12,739	8,393
Percent	39.0	18.2	36.5	20.7

[1] Total for the 7 industry groups included in this article and 7 additional groups which will be covered in a later article.
[2] Not computed owing to small number involved.
[3] Not including superintendents and managers.
[4] This section includes wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling).
[5] Correction of amount for 1933 for iron and steel and their products shown in Monthly Labor Review, May 1935.

Table 3.—Employment and Earnings of Wage Earners in Manufactures in Ohio, 1933 and 1934, by Industries

[Data for earlier years were published in the Monthly Labor Review, May 1935, and in Bulletin No. 6[illegible]

Chemicals and allied products

Item	Bone, carbon, and lampblack [1]		Chemicals, acids, and wood distillation		Fertilizers, tankage	
	1933	1934	1933	1934	1933	1934
Number of establishments	7	9	88	89	48	[illegible]
Average number of wage earners	730	918	3,426	4,126	1,137	1,[illegible]
Total wage payments	$729,998	$1,034,763	$4,678,831	$5,626,035	$961,965	$1,302,7[illegible]
Average annual payments	$1,000	$1,127	$1,366	$1,364	$846	$[illegible]
Indexes (1926=100.0):						
Average number employed	----------	----------	89.6	107.9	85.3	112.[illegible]
Total payments	----------	----------	71.2	85.6	55.2	74.[illegible]
Average annual payments	----------	----------	79.4	79.3	65.1	66.[illegible]

Item	Paint and varnish		Patent medicines and drug compounds		Petroleum refining	
	1933	1934	1933	1934	1933	1934
Number of establishments	86	94	67	69	29	2[illegible]
Average number of wage earners	2,487	2,985	992	1,068	2,860	3,08[illegible]
Total wage payments	$2,770,301	$3,492,323	$864,661	$1,023,110	$3,427,744	$4,102,45[illegible]
Average annual payments	$1,114	$1,170	$872	$958	$1,199	$1,32[illegible]
Indexes (1926=100.0):						
Average number employed	67.5	81.0	76.3	82.2	97.2	104.[illegible]
Total payments	52.8	66.6	59.0	69.8	76.8	91.[illegible]
Average annual payments	78.2	82.2	77.3	84.9	79.1	87.[illegible]

Item	Salt		Soap, candles, grease, and tallow		Chemical and allied products, other [2]	
	1933	1934	1933	1934	1933	1934
Number of establishments	6	5	26	23	67	66
Average number of wage earners	615	682	3,161	3,509	1,167	1,230
Total wage payments	$738,736	$789,404	$3,126,014	$3,770,444	$1,274,560	$1,370,373
Average annual payments	$1,201	$1,157	$989	$1,075	$1,092	$1,114
Indexes (1926=100.0):						
Average number employed	86.4	95.8	85.5	94.9	----------	----------
Total payments	71.9	76.8	66.0	79.6	----------	----------
Average annual payments	83.2	80.1	77.1	83.9	----------	----------

Food and kindred products

Item	Bakery products [3]		Canning and preserving		Coffee, spices, and peanuts; roasting and grinding	
	1933	1934	1933	1934	1933	1934
Number of establishments	517	507	86	90	38	38
Average number of wage earners	12,028	13,535	1,984	2,782	1,163	1,410
Total wage payments	$11,712,542	$14,345,326	$1,011,921	$1,704,486	$971,354	$1,245,274
Average annual payments	$974	$1,060	$510	$613	$835	$883
Indexes (1926=100.0):						
Average number employed	109.5	123.2	113.7	159.4	129.1	156.5
Total payments	76.5	93.7	77.3	130.2	98.9	126.8
Average annual payments	69.9	76.0	68.0	81.7	76.6	81.0

Item	Confectionery		Dairy products and ice cream		Flour-mill and grist-mill products [4]	
	1933	1934	1933	1934	1933	1934
Number of establishments	84	83	358	383	208	216
Average number of wage earners	2,133	2,052	6,330	7,815	2,251	1,800
Total wage payments	$1,295,858	$1,462,309	$7,018,298	$9,455,910	$2,280,964	$1,717,472
Average annual payments	$608	$713	$1,109	$1,210	$1,013	$954
Indexes (1926=100.0):						
Average number employed	63.0	60.6	104.7	129.2	111.3	----------
Total payments	44.1	49.8	74.4	100.3	80.4	----------
Average annual payments	70.0	82.1	71.1	77.6	72.3	----------

See footnotes at end of table.

Table 3.—Employment and Earnings of Wage Earners in Manufactures in Ohio, 1933 and 1934, by Industries—Continued

Food and kindred products—Continued

Item	Food preparations [4]		Slaughtering and meat packing		Food and kindred products, other [3]	
Number of establishments	54	52	159	166	46	48
Average number of wage earners	655	1,354	6,442	7,230	1,251	1,047
Total wage payments	$453,344	$1,450,045	$6,592,543	$7,775,085	$1,126,528	$992,749
Average annual payments	$692	$1,071	$1,023	$1,075	$901	$948
Indexes (1926='100.0):						
Average number employed	67.3		(5)	(5)		
Total payments	30.1		(5)	(5)		
Average annual payments	44.6		(5)	(5)		

Iron and steel and their products

Item	Blast furnace products		Boilers and tanks		Bolts, nuts, washers, and rivets	
Number of establishments	10	11	51	47	19	19
Average number of wage earners	3,796	4,757	1,609	2,099	2,648	3,427
Total wage payments	$5,328,653	$7,096,423	$1,748,128	$2,520,134	$2,174,777	$3,150,133
Average annual payments	$1,404	$1,492	$1,086	$1,201	$821	$919
Indexes (1926=100.0):						
Average number employed	61.0	76.4	65.5	85.4	52.2	67.6
Total payments	46.5	61.9	45.0	64.8	31.8	46.1
Average annual payments	76.2	81.0	68.6	75.9	61.0	68.2

Item	Calculating machines		Cutlery and tools		Doors and shutters, iron and steel	
Number of establishments	26	25	17	19	4	4
Average number of wage earners	6,538	8,145	1,056	1,222	322	276
Total wage payments	$7,579,139	$10,250,454	$817,160	$1,070,163	$205,515	$228,161
Average annual payments	$1,159	$1,258	$774	$876	$638	$827
Indexes (1926=100.0):						
Average number employed	82.3	102.5	27.1	31.4	53.2	45.6
Total payments	61.4	83.0	15.9	20.8	22.8	25.3
Average annual payments	74.5	80.9	58.6	66.4	42.8	55.4

Item	Forgings		Foundry and machine-shop products		Gas engines and tractors	
Number of establishments	32	33	1,091	1,109	18	18
Average number of wage earners	1,457	2,414	44,203	59,810	1,692	2,105
Total wage payments	$1,257,069	$2,371,310	$40,456,667	$63,644,557	$1,687,735	$2,405,126
Average annual payments	$863	$982	$915	$1,064	$997	$1,143
Indexes (1926=100.0):						
Average number employed	31.9	52.8	48.9	66.1	75.7	94.2
Total payments	18.9	35.7	29.3	46.1	47.7	68.0
Average annual payments	59.4	67.6	59.9	69.7	63.0	72.2

Item	Pumps and windmills		Safes and vaults		Steel works and rolling mills	
Number of establishments	30	28	9	9	53	58
Average number of wage earners	1,354	1,401	640	627	51,011	60,001
Total wage payments	$1,159,322	$1,363,745	$472,504	$540,778	$54,352,333	$72,553,304
Average annual payments	$856	$973	$738	$862	$1,066	$1,209
Indexes (1926=100.0):						
Average number employed	47.1	48.7	29.6	28.9	60.3	70.9
Total payments	28.8	33.8	12.8	14.7	35.2	47.0
Average annual payments	61.0	69.4	43.4	50.7	58.5	66.3

See footnotes at end of table.

Table 3.—Employment and Earnings of Wage Earners in Manufactures in Ohio, 1933 and 1934, by Industries—Continued

Iron and steel and their products—Continued

Item	Stoves and furnaces		Tin plate and terneplate		Wire	
Number of establishments	60	60	5	5	6	
Average number of wage earners	6,054	5,677	4,941	5,409	2,269	1,33
Total wage payments	$5,528,405	$5,733,175	$5,400,375	$6,298,330	$2,718,592	$1,740,92
Average annual payments	$913	$1,010	$1,093	$1,164	$1,198	$1,30
Indexes (1926=100.0):						
Average number employed	72.7	68.2	100.9	110.5	58.4	34.
Total payments	46.3	48.0	58.2	67.8	42.8	27.
Average annual payments	63.7	70.4	57.6	61.4	73.3	79.

Item	Wirework, wire rope, and cable		Iron and steel and their products, other [2]			
Number of establishments	28	32	69	71		
Average number of wage earners	1,214	1,270	3,299	4,005		
Total wage payments	$1,040,846	$1,352,459	$2,739,817	$3,863,638		
Average annual payments	$857	$1,065	$830	$965		
Indexes (1926=100.0):						
Average number employed	183.4	191.8				
Total payments	100.4	130.4				
Average annual payments	54.7	68.0				

Leather and leather products

Item	Boots, shoes, cut stock, and findings		Leather, tanned, curried and finished		Leather and leather products, other [2]	
Number of establishments	36	38	15	14	56	54
Average number of wage earners	11,079	12,094	1,383	1,656	668	731
Total wage payments	$7,546,847	$10,136,773	$1,305,496	$1,561,531	$511,758	$652,792
Average annual payments	$681	$838	$944	$943	$766	$893
Indexes (1926=100.0):						
Average number employed	83.1	90.8	87.6	104.9		
Total payments	53.3	71.7	60.4	72.3		
Average annual payments	64.1	78.9	68.9	68.8		

Liquors and beverages

Item	Liquors, malt [1]		Mineral and soda waters		Liquors and beverages, other [2]	
Number of establishments	34	47	116	115	12	24
Average number of wage earners	1,354	2,644	751	837	255	746
Total wage payments	$1,794,454	$3,678,257	$788,277	$975,219	$330,102	$683,312
Average annual payments	$1,325	$1,391	$1,050	$1,165	$1,295	$916
Indexes (1926=100.0):						
Average number employed			41.2	45.9		
Total payments			30.8	38.0		
Average annual payments			74.7	82.9		

Lumber and lumber products

Item	Boxes and packing crates		Coffins and undertakers' goods		Cooperage and related goods	
Number of establishments	36	34	18	19	50	53
Average number of wage earners	837	998	649	725	771	855
Total wage payments	$601,235	$736,167	$600,170	$740,913	$589,986	$749,365
Average annual payments	$718	$738	$925	$1,022	$765	$876
Indexes (1926=100.0):						
Average number employed	65.3	77.9	80.3	89.7	59.7	66.2
Total payments	43.3	53.0	56.2	69.4	38.2	48.5
Average annual payments	66.2	68.1	70.0	77.4	63.9	73.2

See footnotes at end of table.

Table 3.—Employment and Earnings of Wage Earners in Manufactures in Ohio, 1933 and 1934, by Industries—Continued

Lumber and lumber products—Continued

Item	Furniture, including upholstering		Matches		Sawmill and planing-mill products	
Number of establishments	118	118	4	4	605	574
Average number of wage earners	3,243	3,815	1,714	1,899	3,735	3,849
Total wage payments	$2,274,035	$3,008,048	$1,594,940	$1,727,660	$2,670,697	$3,051,702
Average annual payments	$701	$788	$931	$910	$715	$793
Indexes (1926=100.0):						
Average number employed	47.6	56.0	119.0	131.9	36.3	37.4
Total payments	26.5	35.1	93.6	101.3	19.5	22.3
Average annual payments	55.7	62.6	78.6	76.9	53.9	59.8
	Wood bending, turning, and carving		Lumber and lumber products, other [2]			
Number of establishments	27	26	68	69	----------	----------
Average number of wage earners	563	617	1,717	1,928	----------	----------
Total wage payments	$353,220	$428,291	$1,174,941	$1,594,193	----------	----------
Average annual payments	$627	$694	$684	$827	----------	----------
Indexes (1926=100.0):						
Average number employed	70.4	77.1	----------	----------	----------	----------
Total payments	39.4	47.8	----------	----------	----------	----------
Average annual payments	56.0	62.0	----------	----------	----------	----------

Metals and metal products, other than iron and steel

Item	Brass, bronze, and aluminum products		Caskets, metal [1]		Clocks, watches, and materials	
Number of establishments	139	135	6	7	6	6
Average number of wage earners	6,960	9,079	721	813	169	168
Total wage payments	$6,942,623	$9,794,540	$708,002	$884,129	$155,320	$172,916
Average annual payments	$998	$1,079	$982	$1,087	$919	$1,029
Indexes (1926=100.0):						
Average numbers employed	86.3	112.6	----------	----------	17.7	17.6
Total payments	57.2	80.7	----------	----------	12.4	13.8
Average annual payments	66.3	71.7	----------	----------	70.0	78.4
	Copper, zinc, tin, and sheet-iron products		Furniture and office fixtures		Gas and electric fixtures and lamps and reflectors	
Number of establishments	216	234	12	12	30	34
Average number of wage earners	12,896	16,755	1,535	2,206	4,008	5,401
Total wage payments	$11,090,650	$15,732,105	$1,419,585	$2,350,794	$3,929,259	$5,531,697
Average annual payments	$860	$939	$925	$1,066	$980	$1,024
Indexes (1926=100.0):						
Average number employed	95.5	124.1	70.7	101.6	72.5	97.7
Total payments	62.5	88.7	45.9	76.0	55.7	78.4
Average annual payments	65.4	71.5	65.0	74.9	76.9	80.3
	Jewelry, including reducing and refining		Smelting and refining, aluminum, brass, and copper [1]		Metals and metal products, other [2]	
Number of establishments	30	31	13	12	69	71
Average number of wage earners	276	369	777	1,041	1,214	1,353
Total wage payments	$227,433	$325,873	$803,886	$1,128,040	$966,724	$1,322,425
Average annual payments	$824	$883	$1,035	$1,084	$796	$977
Indexes (1926=100.0):						
Average number employed	48.5	64.9	----------	----------	----------	----------
Total payments	27.0	38.7	----------	----------	----------	----------
Average annual payments	55.7	59.7	----------	----------	----------	----------

[1] Classified under "other" in earlier years.
[2] Indexes not computed for "other".
[3] Data are for all employees (not including superintendents and managers) owing to change of classification of bakery wagon drivers by Ohio Division of Labor Statistics from "salespeople" to "wage earners," beginning in 1930.
[4] Classification of one large establishment changed by Ohio Division of Labor Statistics from "flour-mill and grist-mill products" to "food preparations."
[5] Indexes for slaughtering and meat packing omitted due to apparent error in reporting or tabulating data for the base year, 1926.

Farm Wage and Labor Situation on April 1, 1936

FARM wage rates on April 1 averaged $1.43 per day without board, for the country as a whole. This is the highest average recorded by the United States Bureau of Agricultural Economics since April 1, 1931, when the rate was $1.80. The averages for the various States on April 1, 1936, ranged from 75 cents in South Carolina to $2.70 in Rhode Island.

Table 1, taken from a press release issued by the Bureau of Agricultural Economics as of April 14, 1936, shows average farm wage rates, supply of and demand for farm labor, and number of persons employed per farm on April 1, 1936, as compared with January 1, 1936, January 1 and April 1, 1935, and the annual averages 1910–14.

Table 1.—Average Farm Wage Rates and Employment in April 1936 as Compared With January 1936 and January and April 1935

Item	Annual average, 1910–14	Jan. 1, 1935	Apr. 1, 1935	Jan. 1, 1936	Apr. 1, 1936
Farm wage index	100	86	94	94	101
Farm wage rates:					
Per month, with board	$20.41	$17.04	$19.11	$18.54	$20.89
Per month, without board	$29.09	$26.69	$28.82	$28.63	$30.87
Per day, with board	$1.10	$0.92	$0.97	$1.00	$1.05
Per day, without board	$1.43	$1.26	$1.34	$1.37	$1.43
Supply of and demand for farm labor (percentage of normal):					
Supply		104.1	101.4	96.7	93.8
Demand		66.8	73.4	76.0	82.1
Supply as a percentage of demand		155.8	138.1	127.2	114.3
Farm employment [1] (persons per farm):					
Family labor		2.15	2.16	1.99	1.95
Hired labor		.65	.73	.62	.89
Combined		2.80	2.89	2.61	2.84

[1] On farms of crop reporters.

Average farm wage rates per month and per day, with board and without board, on April 1, 1936, are given in table 2 by State and geographic division.

Table 2.—Average Farm Wage Rates on Apr. 1, 1936, by State and Geographic Division

Geographic division and State	Per month		Per day	
	With board	Without board	With board	Without board
United States	$20.89	$30.87	$1.05	$1.43
New England	28.06	49.44	1.61	2.31
Maine	25.00	41.25	1.45	2.00
New Hampshire	28.75	49.00	1.50	2.45
Vermont	26.00	41.75	1.35	2.00
Massachusetts	30.50	54.75	1.90	2.55
Rhode Island	41.75	67.25	1.75	2.70
Connecticut	27.25	56.25	1.70	2.50
Middle Atlantic	25.35	40.40	1.42	2.00
New York	26.25	40.50	1.45	2.05
New Jersey	27.75	47.25	1.55	2.10
Pennsylvania	23.50	38.25	1.35	1.90

Table 2.—Average Farm Wage Rates on Apr. 1, 1936, by State and Geographic Division—Continued

Geographic division and State	Per month		Per day	
	With board	Without board	With board	Without board
East North Central	$24.94	$35.73	$1.27	$1.71
Ohio	22.75	34.00	1.30	1.70
Indiana	23.25	33.25	1.15	1.55
Illinois	27.00	36.50	1.30	1.70
Michigan	24.00	35.75	1.30	1.80
Wisconsin	26.75	38.75	1.30	1.80
West North Central	24.50	33.99	1.16	1.65
Minnesota	26.50	37.25	1.30	1.90
Iowa	29.50	37.00	1.35	1.80
Missouri	20.25	27.75	.90	1.25
North Dakota	24.00	36.75	1.10	1.75
South Dakota	25.25	36.25	1.15	1.75
Nebraska	24.00	34.50	1.25	1.75
Kansas	21.25	32.00	1.10	1.55
South Atlantic	14.75	21.98	.77	1.03
Delaware	23.00	34.50	1.10	1.55
Maryland	23.00	34.75	1.15	1.55
Virginia	19.00	27.00	.95	1.20
West Virginia	20.00	30.75	1.00	1.40
North Carolina	15.75	23.50	.85	1.10
South Carolina	11.00	16.00	.55	.75
Georgia	10.50	15.75	.60	.80
Florida	14.00	23.50	.75	1.10
East South Central	14.09	20.70	.71	.92
Kentucky	17.25	25.00	.80	1.05
Tennessee	15.25	22.25	.75	.95
Alabama	12.00	17.75	.65	.85
Mississippi	12.00	18.00	.65	.85
West South Central	16.95	24.63	.82	1.08
Arkansas	14.50	21.50	.65	.95
Louisiana	13.50	19.75	.70	.90
Oklahoma	17.75	26.75	.95	1.20
Texas	19.00	27.00	.90	1.15
Mountain	29.96	44.05	1.43	1.95
Montana	34.00	48.75	1.60	2.30
Idaho	35.50	50.50	1.60	2.15
Wyoming	32.00	45.50	1.45	2.10
Colorado	24.75	39.00	1.25	1.80
New Mexico	23.25	34.25	1.15	1.50
Arizona	29.00	45.50	1.45	1.75
Utah	36.25	49.75	1.75	2.20
Nevada	35.25	51.00	1.45	2.45
Pacific	36.50	56.59	1.62	2.40
Washington	29.50	47.50	1.60	2.25
Oregon	29.75	44.75	1.50	2.10
California	39.75	61.50	1.65	2.50

Wages in the Philippine Islands in 1934 and 1935

THE average daily wage in the Philippine Islands in 1935 was 0.55 peso, while the average daily wage in the various Provinces in 1934 ranged from 0.30 peso [1] in the Province of Leyte to 0.80 peso in the Provinces of Manila and Rizal, as shown in the following tabulation. The figures are taken from Economic and Social Conditions of the Philippine Islands, 1935, special supplement to the Philippine Statistical Review, Volume 2, published by the Philippine Department of Agriculture and Commerce.

[1] Peso=about 50 cents in United States currency.

Average Daily Wages in Philippine Islands, 1934 and 1935

[Peso=about 50 cents in United States currency]

Date and locality	Average daily wage
	Pesos
1935:	
Philippine Islands	0.55
1934:	
Provinces:	
Abra	.45
Agusan	.55
Albay	.56
Antique	.47
Bataan	.70
Batanes	.54
Batangas	.72
Bohol	.37
Bukidnon	.47
Bulacan	.60
Cagayan	.53
Camarines Norte	.55
Camarines Sur	.44
Capiz	.49
Cavite	.62
Cebu	.32
Cotabato	.54
Davao	.63
Ilocos Norte	.54
Ilocos Sur	.49
Iloilo	.46
Isabela	.61
Laguna	.74
Lanao	.53
1934:	
Provinces—Continued	
La Union	0.57
Leyte	.37
Manila	.80
Marinduque	.56
Masbate	.44
Mindoro	.61
Misamis Occidental	.42
Misamis Oriental	.41
Mountain	.48
Negros Occidental	.52
Negros Oriental	.38
Neuva Ecija	.56
Neuva Vizcaya	.53
Palawan	.47
Pampanga	.78
Pangasinan	.56
Rizal	.80
Romblon	.42
Samar	.40
Sorsogon	.33
Sulu	.44
Surigao	.44
Tarlac	.63
Tayabas	.58
Zambales	.65
Zamboanga	.50

Average Annual Earnings of Salaried Employees in Manufacturing Industries in Canada, 1934

THE average annual earnings of salaried employees in the manufacturing industries of Canada in 1934 were $1,614, as compared with $1,607 in the previous year, an advance of only 0.4 percent. In the same period, however, the average wages in these industries showed an increase from $785 to $837 or 6.6 percent. Some of the other findings of the Dominion Census of Manufactures are given in the table below.[1]

Statistics of Manufacturing Industries in Canada, 1929, 1932, 1933, and 1934

Item	1934	1933	1932	1929	Percent of change, 1933 to 1934
Number of establishments	25,663	25,232	24,544	23,597	+1.7
Number of salaried employees	99,730	94,494	95,070	96,607	+5.5
Number of wage earners	445,432	399,409	400,328	597,827	+11.5
Capital invested	$4,703,917,730	$4,689,373,704	$4,741,255,610	$5,083,014,754	+.3
Amount paid in salaries	$160,986,876	$151,860,323	$164,695,605	$188,747,672	+6.0
Average salary	$1,614	$1,607	$1,732	$1,954	+.4
Amount paid in wages	$372,607,759	$313,701,767	$341,187,718	$624,302,170	+18.8
Average wage	$837	$785	$852	$1,045	+6.6
Cost of material	$1,230,977,053	$969,188,574	$955,968,683	$2,066,636,914	+27.0
Value of production	$2,533,758,954	$2,086,847,847	$2,126,194,555	$4,063,987,279	+21.4
Value added by manufacture	$1,222,943,889	$1,004,380,223	$1,170,225,872	$1,997,350,365	+21.7

[1] Labor Gazette, Ottawa, September 1934 (p. 889), April 1936 (p. 334).

Wages in Hamburg, Germany, in 1931, 1932, and 1935

THERE was a sudden drop in wages in January 15, 1932, as compared with those on December 15, 1931. This was due to a Government decree issued on December 8, 1931, which provided for wage decreases of 10 to 15 percent, beginning January 1, 1932.

The following table shows the wages of representative groups of workers in the city of Hamburg, Germany, on December 15, 1931, January 15, 1932, and December 15, 1935.[1] Supplements such as social benefits, piece-rate supplements, and overtime payments are excluded from the wages quoted in the table, but deductions for various taxes and fees presumably are not subtracted.

Wages of Representative Groups of Workers in Hamburg, Germany, 1931, 1932, and 1935

Occupation	Period	Dec. 15, 1931	Jan. 15, 1932	Dec. 15, 1935
		Marks[1]	*Marks*[1]	*Marks*[1]
Skilled workers:				
Bakers	Week	57.00	48.45	46.00
Printers	do	55.00	48.00	48.00
Electricians	Hour	1.10	1.03	.96
Mechanics	do	1.11	1.00	.95
Tailors	do	1.11	1.03	.88
Tinsmiths	do	1.63	1.36	1.16
Coppersmiths	do	1.11	1.02	.95
Painters	do	1.34	1.25	1.00
Masons	do	1.44	1.28	1.10
Butchers	Week	58.00	52.00	46.50
Locksmiths	Hour	1.21	1.09	1.05
Shoemakers	do	1.04	.94	.86
Spinners	do	.84	.76	.74
Tapestry workers	do	1.31	1.17	(2)
Carpenters	do	1.16	1.04	.91
Cabinet makers	do	1.46	1.30	1.12
Unskilled workers:				
Building worker helpers	do	1.20	1.07	.91
Chemical workers	do	.88	.75	.75
Fishermen	do	.88	.75	.75
Harbor workers	Day	8.30	7.60	7.60
Coal workers (*Kohlenarbeiter*)	do	9.12	8.32	8.32
Teamsters	Week	52.60	48.40	48.40
Metal workers, agriculture	Hour	.68	.61	.61
Metal workers, ship building	do	.68	.61	.58

[1] Average exchange rate of mark = 23.6 cents in December 1931 and January 1932 and 40.2 cents in December 1935.
[2] No agreement wages since 1933; the wages paid vary according to establishments.

Wages in Tokyo in January 1936

DAILY wages of workers in Tokyo in January 1936 ranged from 0.65 yen [2] for female match makers to 4.90 yen for male wooden-pattern makers in the metal industry. Of the occupations covered in a recent Japanese report,[3] those in the metal industry showed the highest rates. The reports for this industry showed wages of 4.51 yen for blacksmiths, 4.09 yen for finishers, 3.99 yen for lathemen, and

[1] Hamburg. Statistisches Landesamt. Aus Hamburgs Verwaltung und Wirtschaft, Feb. 15, 1936 (p. 250).
[2] Average exchange rate of yen in January 1936 = 29.0 cents.
[3] Tokyo Chamber of Commerce and Industry. Monthly Report on Current Economic Conditions, March 1936 (pp. 13–14).

3.72 yen for founders. The daily wage for leather workers, 3.49 yen, ranked next. The average wage per day for carpenters, however, was only 1.95 yen, while in other occupations in the building trades covered in the report, wages ranged from 2.34 yen for painters to 2.87 for stonemasons.

The wage index increased considerably from January 1935 to January 1936 for male match makers, flour millers, stevedores, and makers of Japanese paper, rising from 100.0 in January 1935 to 130.0, 119.7, 117.1, and 115.3, respectively, for these occupations. On the other hand a substantial reduction was recorded in wages in certain other occupations; for example, the January 1936 indexes for female hosiery knitters and rope makers were respectively 70.8 and 78.6 on the January 1935 base. In 20 occupations no wage change is reported for January 1936 as compared with January 1935.

Daily Wages in Various Industries in Tokyo, January 1936

[Yen at par=50 cents; average exchange rate, January 1936=29 cents]

Occupation	Daily wage		Occupation	Daily wage	
	Amount	Index numbers (January 1935=100)		Amount	Index numbers (January 1935=100)
Textile industry:	*Yen*		Food industry—Continued.	*Yen*	
Silk reelers, female	0.73	101.4	Sugar refinery workers	2.27	102.3
Cotton spinners, female	.86	100.0	Confectioners (Japanese cake)	2.00	100.0
Silk throwers, female	.83	107.8	Canners	1.51	96.2
Weavers, cotton (machine), female	.69	94.5	Wearing-apparel industry:		
Weavers, silk (hand), female	1.28	102.4	Tailors (for European dress)	2.00	100.0
Hosiery knitters, male	2.00	90.9	Shoemakers	2.62	105.6
Hosiery knitters, female	.85	70.8	Clog makers	1.12	100.0
Metal industry:			Wooden, bamboo, and other plant products:		
Lathemen	3.99	83.8	Sawyers (machine)	1.84	102.8
Finishers	4.09	88.1	Joiners	1.85	100.0
Founders	3.72	90.7	Lacquerers	2.12	96.4
Blacksmiths	4.51	97.4	Rope makers	1.65	78.6
Wooden-pattern makers	4.90	102.3	Mat makers (Tatami)	2.33	100.0
Ceramics:			Printing industry:		
Potters	1.98	96.1	Compositors	2.95	100.0
Glass makers	2.64	98.5	Bookbinders	2.28	99.1
Cement makers	2.51	92.6	Building industry:		
Tile makers (shapers)	1.40	100.0	Carpenters	1.95	100.0
Chemical industry:			Plasterers	2.43	100.0
Makers of chemicals	2.13	106.0	Stonemasons	2.87	100.0
Match makers, male	1.30	130.0	Bricklayers	2.67	100.0
Match makers, female	.65	100.0	Roofing tile layers	2.60	100.0
Oil pressers	1.65	98.8	Painters	2.34	100.0
Paper industry:			Day laborers:		
Makers of Japanese paper	1.43	115.3	Stevedores	2.88	117.1
Makers of printing paper	1.95	98.5	Day laborers, male	1.45	95.4
Leather industry: Leather makers	3.49	114.8	Day laborers, female	.77	100.0
Food industry:			Fishermen	1.50	98.7
Flour millers	2.31	119.7	Domestic service:		
Sake-brewery workers	1.35	100.0	Servants, male	.80	100.0
Soy-brewery workers	2.10	100.0	Servants, female	.78	100.0

Wages of Agricultural Labor in Portugal in December 1935 [1]

WAGES of agricultural workers in Portugal in December 1935 ranged, according to kind of work and district, from 6.00 to 9.20 escudos [2] for men and from 3.20 to 5.40 escudos per day for women.

For men, the highest wages reported (9.20 escudos per day) were for seeding in Setúbal and the lowest (6.00 escudos per day) for seeding and general work in Viseu and for vine pruning in Viana do Castelo. For women the highest rates (5.40 escudos per day) were for seeding in Aveiro and the lowest (3.20 escudos per day) for picking olives in Bragança and Castelo Branco, for gardening in Pôrto, and for general work in Faro and Guarda.

[1] Portugal. Boletim Mensal do Instituto Nacional de Estatística (Lisbon), Ano VIII, No. 1 (Jan. 1936), p. 64. A section entitled "Average wages of rural workers" appears for the first time in this issue.

[2] Average exchange rate of escudo in December 1935=4.49 cents.

EMPLOYMENT OFFICES

Operations of United States Employment Service, April 1936

WIDESPREAD gains in private employment and a striking increase in the number of placements made in public employment at prevailing wages characterized the operations of the United States Employment Service during April 1936. These gains were accompanied by a marked decrease in the number of persons registering for work at employment offices and a decline in the total active file of persons actively seeking jobs through the public-employment system.

Offices of the United States Employment Service during April made a total of 109,174 placements in gainful employment in private industry. This is a gain of 19.4 percent over the number reported in March and represents the highest level of private placements since last October. In April 1935, 101,467 placements in private employment were reported, showing a gain of 7.6 percent for the placements in the 1936 month. These gains in private employment reflect the intensification of private placement work by the employment offices and the results of the program of employer solicitation now being conducted.

Public employment offices made 200,835 placements in public and governmental employment at prevailing wages during April, a gain of 47.3 percent above the number reported in March. Employment of this nature includes all placements in local, State, and Federal governmental units on public works projects and with contractors working on such projects. The number of placements of this type reported in April is the highest since August 1934, and represents a gain of 36.8 percent over the number reported in April 1935.

Security-wage assignments on relief-works projects in April continued the decline which has been evident since the peak of W. P. A. activities was reached last December. Employment offices made 140,950 such placements in April, a decline of 33.6 percent from the number made in the preceding month.

During April 295,686 new applicants were registered and classified by the Employment Service offices. This is a decline of 16.3 percent from the number of persons registered in March and represents the lowest number of new applications received in any month since March 1935.

Accompanying the increases in private placements and employment on public and governmental work and the decrease in the volume of new applications, the active file of job seekers registered

with employment offices showed the first decline since last November, being 2.8 percent less than the number actively registered at the end of March. Declines in the active file were general throughout the country, only 8 States not reporting a drop during April. The active file of the Employment Service includes the registrations of all persons seeking work through the public employment offices whether they are employed or not. In addition to unemployed persons, the active file contains the registrations of persons seeking better jobs, of persons engaged in short-time employment, (i. e., on jobs lasting from 1 day to 1 week), and of persons engaged on relief-works projects on a security-wage basis.

Offices of the affiliated State employment service made 76,246 placements in private employment during April, a gain of 19.9 percent over March and equal to 69.8 percent of the private placements made by the entire Employment Service. The State offices made 71,490 placements in public and governmental employment, a gain of 48.6 percent over the March total and equal to 35.6 percent of the public and governmental placements for the whole service. State services made 71,365 placements on relief-works projects.

State employment offices received the applications of 163,513 new registrants during April, 12.8 percent less than the number received during March and equal to 55.3 percent of the total for the whole service. At the end of April, those actively seeking employment through offices of the State employment service dropped 2.7 percent from the total at the end of March. The number of registrants in the State employment service active files constituted 45.3 percent of the total for the country.

Offices of the National Reemployment Service made 32,928 placements in private employment during April, a gain of 18.3 percent over the total reported for March. These placements constituted 30.2 percent of the total private placements reported for the entire Employment Service. National Reemployment Service offices made 129,345 placements in public and governmental employment during the month, a gain of 46.6 percent over the preceding month's total, and equal to 64.4 percent of the aggregate of the entire Employment Service. In addition, these offices made 69,585 placements on works-relief projects.

During April, 132,173 job seekers registered with offices of the National Reemployment Service, a decline of 20.2 percent from the number registered during March. This number of new applicants is equal to 44.7 percent of the total registered by the entire Employment Service.

Offices of the United States Employment Service during April made 33,644 placements of veterans, 5,738 in private employment, a gain of 19.9 percent above the March total, 19,758 in public and governmental, a rise of 36.6 percent from March, and 8,148 on relief-

works projects. During the month 10,601 registrations were received from veterans, a decline of 12.2 percent from the previous month. At the end of the month, 520,814 veterans were actively registered for employment, 4.4 percent less than the number reported one month earlier.

Table 1.—Operations of Offices of Combined State Employment Services and National Reemployment Service, April 1936

State	Placements						New applications		Active file	
	Total	Private		Public		Relief[1]	Number	Percent of change from March	Number, Apr. 30	Percent of change from Mar. 31
		Number	Percent of change from March	Number	Percent of change from March					
United States	450,959	109,174	+19.4	200,835	+47.3	140,950	295,686	−16.3	8,996,649	−2.8
Alabama	7,155	311	+43.3	3,820	−20.8	3,024	3,855	−25.2	140,907	−5.4
Arizona	3,069	633	+31.9	1,999	+4.0	437	1,404	−31.5	38,367	−10.1
Arkansas	7,488	623	−6.7	2,690	+53.5	4,175	3,679	−32.9	103,771	−2.7
California	29,576	11,755	+19.8	11,084	+4.4	6,773	23,096	−11.8	367,289	−8.5
Colorado	5,153	1,185	+26.6	1,907	+10.7	2,061	2,612	−27.3	109,006	−4.8
Connecticut	4,851	1,749	+18.6	2,349	+201.2	753	4,456	−2.3	83,991	−2.5
Delaware	1,655	579	+18.2	834	+6.5	242	838	+2.8	16,482	−2.6
Florida	5,846	2,131	−22.1	2,788	+27.0	927	4,844	−25.9	116,627	−21.5
Georgia	9,294	1,940	+16.9	4,475	+9.1	2,879	6,400	−36.7	246,140	−9.0
Idaho	2,626	433	+14.6	1,515	+27.5	678	1,359	−6.1	37,194	−.8
Illinois	31,187	12,732	+29.3	10,648	+83.3	7,807	22,068	−16.2	457,927	−2.4
Indiana	9,380	4,380	+22.3	4,606	+83.8	394	7,886	−23.0	211,632	−1.3
Iowa	10,308	3,297	+10.5	6,034	+126.9	977	6,002	+15.7	92,648	−4.2
Kansas	9,997	978	+10.3	7,874	+32.8	1,145	3,782	−31.4	110,350	−7.0
Kentucky	5,067	1,330	+55.9	2,858	+29.4	879	3,951	−12.7	244,950	+.8
Louisiana	6,295	582	+8.6	5,713	+526.4	0	10,525	+174.2	78,495	+15.7
Maine	1,945	29	+61.1	1,028	+391.9	888	1,729	−3.1	40,993	−5.3
Maryland	3,825	482	+10.8	1,600	+75.6	1,743	2,485	−17.3	123,449	−4.7
Massachusetts	7,559	990	+16.5	2,024	+108.7	4,545	7,787	−32.9	415,012	+1.2
Michigan	10,298	973	+9.4	4,246	+132.4	5,079	11,287	−3.8	298,575	+1.5
Minnesota	9,565	4,189	+24.3	3,759	+85.4	1,617	6,513	+12.4	163,603	−1.6
Mississippi	8,061	57	+21.3	2,992	+100.1	5,012	4,101	−33.1	192,002	+.3
Missouri	9,383	2,096	+24.5	5,270	+14.3	2,017	6,788	−33.2	340,119	−2.0
Montana	6,060	1,158	+43.5	4,107	+62.7	795	1,601	−29.4	46,614	−11.0
Nebraska	7,205	611	−12.3	5,422	+95.4	1,172	3,164	−19.5	61,652	−4.6
Nevada	1,536	135	+75.3	1,166	+5.3	235	510	−14.4	6,575	−8.0
New Hampshire	2,773	1,074	+71.8	950	+289.3	749	1,064	−16.7	36,409	+1.2
New Jersey	10,889	3,364	+10.6	1,605	−16.4	5,920	9,453	−22.1	312,181	−.5
New Mexico	3,465	388	+34.7	2,194	−16.8	883	1,270	−15.3	60,431	−.2
New York	30,181	11,977	+7.1	8,707	+67.6	9,497	21,171	−15.3	625,369	−5.2
North Carolina	11,608	2,866	+54.8	6,446	+6.2	2,296	8,366	−17.1	187,096	−1.7
North Dakota	3,819	1,090	+85.1	633	+141.6	2,096	1,909	−1.7	40,468	−6.8
Ohio	26,676	9,504	+21.0	6,974	+46.0	10,198	15,054	−23.9	367,560	−8.9
Oklahoma	7,314	1,255	−6.3	3,917	+11.1	2,142	4,130	−43.3	179,555	−.5
Oregon	5,873	786	+19.8	4,095	+25.2	992	2,378	−9.4	112,165	−1.5
Pennsylvania	38,332	5,502	+36.7	9,139	+150.7	23,691	29,067	−11.7	1,364,150	+.5
Rhode Island	1,316	315	+15.0	390	+129.4	611	1,171	−22.6	60,832	+.1
South Carolina	7,636	1,188	+31.3	3,551	+22.3	2,897	2,653	−54.7	158,570	−1.1
South Dakota	4,548	1,013	−5.4	2,199	+158.4	1,336	1,639	+24.0	38,425	−1.5
Tennessee	7,268	931	+25.0	4,290	+37.0	2,047	5,350	−18.8	261,930	−.7
Texas	26,067	1,706	+17.7	20,003	+34.6	4,358	13,751	−16.8	331,238	−1.0
Utah	3,839	720	+16.7	2,319	+191.3	800	857	−16.4	35,495	−10.7
Vermont	1,724	320	+37.3	1,167	+338.7	237	942	−35.7	18,025	−6.0
Virginia	8,908	1,547	+10.7	5,826	+30.9	1,535	5,774	−22.3	128,325	−5.6
Washington	12,652	687	+52.7	5,497	+65.1	6,468	3,806	−14.3	206,560	−3.6
West Virginia	4,110	1,288	+8.5	2,373	+48.0	449	2,868	−6.4	138,163	−.5
Wisconsin	12,010	3,852	+33.1	3,194	+53.2	4,964	6,632	−5.4	129,764	−1.4
Wyoming	2,458	318	+34.7	1,691	+38.4	449	1,268	+17.0	13,585	−10.6
District of Columbia	3,109	2,125	+21.1	903	+14.0	81	2,391	−14.2	45,983	−7.7

[1] Includes only security-wage placements on works-relief projects.

Table 2.—Operations of Offices of State Employment Services, April 1936

State	Placements						New applications		Active file	
	Total	Private		Public		Relief[1]	Number	Percent of change from March	Number, Apr. 30	Percent of change from Mar. 31
		Number	Percent of change from March	Number	Percent of change from March					
All States	219,101	76,246	+19.9	71,490	+48.6	71,365	163,513	−12.8	4,076,028	−2.7
Arizona	960	321	+32.1	607	−13.3	32	511	−49.6	14,614	−14.8
California	21,881	9,634	+25.0	6,431	+9.8	5,816	18,807	−10.6	302,880	−8.6
Colorado	2,703	647	+35.4	686	+53.5	1,370	1,338	−39.5	59,060	−.6
Connecticut	3,718	1,351	+24.3	1,688	+176.7	679	3,577	−5.6	64,363	−1.9
Delaware	1,655	579	+18.2	834	+6.5	242	838	+2.8	16,482	−2.6
Florida	2,228	490	+47.6	1,038	+31.7	700	2,150	−51.3	42,286	−48.0
Idaho	1,599	305	+18.7	837	+10.6	457	846	+.7	18,569	−.5
Illinois	22,522	11,239	+27.9	5,234	+94.4	6,049	16,920	−16.8	326,334	−1.7
Indiana	6,041	4,056	+29.1	1,847	+58.0	138	4,811	−18.1	112,016	−3.6
Iowa	5,044	2,705	+11.7	2,013	+73.5	326	3,230	+3.1	52,904	−3.5
Kansas (not affiliated)	2,639	622	−2.4	1,569	+55.8	448	664	−55.7	25,360	−10.0
Louisiana	6,295	582	+8.6	5,713	+526.4	0	10,525	+174.2	78,495	+15.7
Massachusetts	4,070	877	+20.3	819	+110.0	2,374	4,523	−27.9	187,069	+1.4
Minnesota	4,055	2,604	+16.2	888	+84.2	563	2,913	−8.7	76,174	−3.8
Missouri	3,693	1,573	+19.2	946	−.4	1,174	3,887	−37.4	137,686	−1.8
Nevada	826	88	+72.5	712	−8.0	26	317	−20.9	4,434	−9.0
New Hampshire	1,215	427	−9.0	305	+79.4	483	615	−28.7	18,720	+1.2
New Jersey	8,894	3,024	+8.4	1,155	−30.6	4,715	8,355	−19.1	261,434	+.0
New Mexico	1,470	162	+33.9	967	−25.6	341	634	−25.0	30,589	−.5
New York	19,394	10,385	+11.0	4,533	+32.0	4,476	15,946	−12.6	355,285	−7.3
North Carolina	11,608	2,866	+54.8	6,446	+6.2	2,296	8,366	−17.1	187,096	−1.7
North Dakota	849	325	+54.8	125	+316.7	399	569	+38.4	6,114	+7.3
Ohio	20,002	7,622	+23.9	3,621	+46.8	8,759	11,661	−19.6	229,063	−2.1
Oklahoma	2,692	859	−18.0	946	+106.6	887	1,285	−35.3	32,572	−4.3
Oregon	2,840	487	+22.1	1,835	+24.4	518	1,471	−13.8	82,124	−.2
Pennsylvania	25,943	3,341	+23.8	4,489	+115.0	18,113	18,560	−9.4	845,370	+1.3
Rhode Island	886	284	+19.8	253	+125.9	349	1,111	−14.7	54,150	+.4
South Dakota	4,112	889	−7.8	2,039	+181.2	1,184	1,497	+29.7	35,407	−1.1
Tennessee	4,581	680	+10.0	2,684	+36.6	1,217	2,658	−20.8	112,825	+.6
Texas	7,451	270	+107.7	4,663	+47.3	2,518	4,441	−19.8	90,624	+2.1
Vermont	1,724	320	+37.3	1,167	+338.7	237	942	−35.7	18,025	−6.0
Virginia	1,019	633	+6.7	306	−10.5	80	672	−22.8	21,252	−.8
West Virginia	1,065	484	−3.8	567	+103.2	14	809	+.7	30,580	−.2
Wisconsin	9,100	3,217	+13.6	1,787	+45.6	4,096	5,000	−8.6	94,271	−2.1
Wyoming	1,218	173	+9.5	837	+40.0	208	673	+26.7	5,818	−13.6
District of Columbia	3,109	2,125	+21.1	903	+14.0	81	2,391	−14.2	45,983	−7.7

[1] Includes only security-wage placements on work-relief projects

Table 3.—Operations of Offices of the National Reemployment Service, April 1936

State	Placements						New applications		Active file	
	Total	Private		Public		Relief[1]	Number	Percent of change from March	Number, Apr. 30	Percent of change from Mar. 31
		Number	Percent of change from March	Number	Percent of change from March					
All States	231,858	32,928	+18.3	129,345	+46.6	69,585	132,173	−20.2	4,920,621	−2.8
Alabama	7,155	311	+43.3	3,820	−20.8	3,024	3,855	−25.2	140,907	−5.4
Arizona	2,109	312	+31.6	1,392	+13.8	405	893	−13.8	23,753	−6.9
Arkansas	7,488	623	−6.7	2,690	+53.5	4,175	3,679	−32.9	103,771	−2.7
California	7,695	2,121	+0.9	4,617	−2.4	957	4,289	−16.6	64,409	−7.9
Colorado	2,450	538	+17.5	1,221	−4.3	691	1,274	−8.0	49,946	−9.4
Connecticut	1,133	398	+2.6	661	+288.8	74	879	+13.9	19,628	−4.6
Florida	3,618	1,641	−31.8	1,750	+24.4	227	2,694	+26.8	74,341	+4.5
Georgia	9,294	1,940	+16.9	4,475	+9.1	2,879	6,400	−36.7	246,140	−9.0
Idaho	1,027	128	+5.8	678	+57.3	221	513	−15.6	18,625	−1.1
Illinois	8,665	1,493	+41.2	5,414	+73.7	1,758	5,148	−14.2	131,593	−3.9
Indiana	3,339	324	−26.4	2,759	+106.4	256	3,075	−29.7	99,616	+1.4
Iowa	5,264	592	+5.3	4,021	+168.2	651	2,772	+35.0	39,744	−5.0
Kansas	7,358	356	+42.4	6,305	+28.0	697	3,118	−22.3	84,990	−6.1
Kentucky	5,067	1,330	+55.9	2,858	+29.4	879	3,951	−12.7	244,950	+.8
Maine	1,945	29	+61.1	1,028	+391.9	888	1,729	−3.1	40,993	−5.3
Maryland	3,825	482	+10.8	1,600	+75.6	1,743	2,485	−17.3	123,449	−4.7
Massachusetts	3,489	113	−6.6	1,205	+107.8	2,171	3,264	−38.8	227,943	+1.1
Michigan	10,298	973	+9.4	4,246	+132.4	5,079	11,287	−3.8	298,575	+1.5
Minnesota	5,510	1,585	+40.5	2,871	+85.8	1,054	3,600	+38.2	87,429	+.4
Mississippi	8,061	57	+21.3	2,992	+100.1	5,012	4,101	−33.1	192,002	+.3
Missouri	5,690	523	+44.1	4,324	+18.1	843	2,901	−26.8	202,433	−2.1
Montana	6,060	1,158	+43.5	4,107	+62.7	795	1,601	−29.4	46,614	−11.0
Nebraska	7,205	611	−12.3	5,422	+95.4	1,172	3,164	−19.5	61,652	−4.6
Nevada	710	47	+80.8	454	+36.3	209	193	−1.0	2,141	−5.8
New Hampshire	1,558	647	+314.7	645	+771.6	266	449	+8.2	17,689	+1.1
New Jersey	1,995	340	+34.4	450	+76.5	1,205	1,098	−38.9	50,747	−3.3
New Mexico	1,995	226	+35.3	1,227	−8.4	542	636	−2.8	29,842	+.1
New York	10,787	1,592	−12.9	4,174	+136.8	5,021	5,225	−22.6	270,084	−2.4
North Dakota	2,970	765	+101.8	508	+119.0	1,697	1,340	−12.5	34,354	−9.0
Ohio	6,674	1,882	+10.6	3,353	+45.0	1,439	3,393	−35.7	138,497	−18.3
Oklahoma	4,622	396	+35.6	2,971	−3.1	1,255	2,845	−46.3	146,983	+.4
Oregon	3,033	299	+16.3	2,260	+25.9	474	907	−1.1	30,041	−5.0
Pennsylvania	12,389	2,161	+62.7	4,650	+198.5	5,578	10,507	−15.4	518,780	−.8
Rhode Island	430	31	−16.2	137	+136.2	262	60	−71.6	6,682	−2.5
South Carolina	7,636	1,188	+31.3	3,551	+22.3	2,897	2,653	−54.7	158,570	−1.1
South Dakota	436	124	+15.9	160	+27.0	152	142	−15.5	3,018	−5.1
Tennessee	2,687	251	+97.6	1,606	+37.7	830	2,692	−16.8	149,105	+.9
Texas	18,616	1,436	+8.8	15,340	+31.1	1,840	9,310	−15.3	240,614	−2.1
Utah	3,839	720	+16.7	2,319	+191.3	800	857	−16.4	35,495	−10.7
Virginia	7,889	914	+13.5	5,520	+34.4	1,455	5,102	−22.2	107,073	−6.5
Washington	12,652	687	+52.7	5,497	+65.1	6,468	3,806	−14.3	206,560	−3.6
West Virginia	3,045	804	+17.5	1,806	+36.4	435	2,059	−8.9	107,583	−.6
Wisconsin	2,910	635	+63.7	1,407	+64.0	868	1,632	+5.7	35,493	+.6
Wyoming	1,240	145	+85.9	854	+36.9	241	595	+7.6	7,767	−8.2

[1] Includes only security-wage placements on works-relief projects.

Table 4.—Veterans' Activities of Offices of Combined State Employment Services and National Reemployment Service, April 1936

State	Placements						New applications		Active file	
		Private		Public						
	Total	Number	Percent of change from March	Number	Percent of change from March	Relief[1]	Number	Percent of change from March	Number, Apr. 30	Percent of change from Mar. 31
United States	33,644	5,738	[2]+19.9	19,758	[2]+36.6	8,148	10,601	−12.2	520,814	−4.4
Alabama	443	11	−35.3	293	−30.4	139	95	−16.7	6,899	−9.3
Arizona	224	25	[3]	183	[3]	16	81	−16.5	2,143	−12.6
Arkansas	337	48	+4.3	186	+22.4	103	108	+10.2	4,634	−3.7
California	3,119	989	+19.9	1,602	+.4	528	1,349	−18.1	28,956	−13.1
Colorado	314	53	+120.8	182	+7.7	79	127	+5.0	6,013	−5.4
Connecticut	345	67	+36.7	205	+97.1	73	183	+28.9	5,805	−2.7
Delaware	81	28	−24.3	46	−28.1	7	14	−46.2	922	−3.7
Florida	293	84	−15.2	175	+16.7	34	148	−12.4	5,448	−29.3
Georgia	469	97	+29.3	280	−9.1	92	109	−26.8	10,402	−6.6
Idaho	247	39	+62.5	162	−4.7	46	77	−18.1	2,167	−3.9
Illinois	2,342	631	+40.5	1,193	+60.1	518	956	−23.5	31,344	−2.5
Indiana	746	206	+21.2	524	+69.6	16	258	−24.3	14,326	−4.8
Iowa	1,034	277	−1.4	691	+90.9	66	313	+44.2	6,487	−9.1
Kansas	850	39	[3]	738	[3]	73	120	−31.4	6,531	−11.7
Kentucky	424	88	+15.8	291	−.3	45	116	−12.1	14,351	+.1
Louisiana	389	28	+7.7	361	+319.8	0	407	+159.2	5,778	+9.0
Maine	137	1	--------	78	+239.1	58	50	−16.7	3,017	−6.0
Maryland	376	35	−18.6	185	+81.4	156	109	−.9	7,859	−6.6
Massachusetts	583	35	+118.8	211	+91.8	337	236	−41.1	24,484	+2.5
Michigan	752	61	+56.4	384	+79.4	307	517	−16.6	18,654	−.6
Minnesota	785	196	+30.7	450	+51.0	139	238	+8.7	12,929	−1.9
Mississippi	300	5	--------	144	+176.9	151	100	−5.7	6,728	−.6
Missouri	772	93	−4.1	535	+1.5	144	265	−31.7	22,234	−1.6
Montana	531	109	+47.3	381	+53.0	41	62	−11.4	2,674	−12.8
Nebraska	607	41	−46.8	451	+87.1	115	124	−12.7	3,969	−3.1
Nevada	178	13	+1200.0	148	+16.5	17	24	−52.0	322	−20.7
New Hampshire	212	54	+92.9	83	+315.0	75	58	+41.5	2,430	+.5
New Jersey	465	127	+30.9	121	+168.9	217	297	−18.2	21,046	−1.6
New Mexico	261	30	−3.2	190	−15.9	41	39	−39.1	3,153	−3.7
New York	1,680	374	−1.3	793	+60.9	513	497	−22.2	38,300	−3.8
North Carolina	618	147	+45.5	396	−13.9	75	220	−6.8	7,288	−2.5
North Dakota	206	59	+247.1	65	+85.7	82	47	+27.0	1,888	−8.2
Ohio	2,017	426	+27.2	841	+54.3	750	467	−12.9	23,367	−11.8
Oklahoma	504	79	+8.2	340	+.3	85	120	−2.4	10,459	−1.7
Oregon	656	52	+8.3	500	+30.9	104	124	−13.9	8,631	−4.5
Pennsylvania	2,471	269	+47.0	973	+142.0	1,229	835	−13.9	65,258	−.9
Rhode Island	89	13	−13.3	49	+133.3	27	37	−56.0	3,788	−3.3
South Carolina	410	45	−8.2	255	+10.9	110	49	−43.0	6,185	−2.6
South Dakota	427	85	−24.1	249	+124.3	93	47	+38.2	2,202	−5.7
Tennessee	489	39	+77.3	332	+22.5	118	140	−9.1	13,143	−.3
Texas	2,120	88	+22.2	1,771	+14.3	261	477	−8.1	15,538	−4.3
Utah	464	54	+5.9	339	+74.7	71	38	−15.6	2,103	−10.1
Vermont	89	10	+233.3	71	+610.0	8	28	−20.0	614	−7.7
Virginia	583	84	−2.3	413	+16.3	86	183	−14.9	5,440	−11.0
Washington	1,063	39	+50.0	618	+67.9	406	106	−27.9	13,433	−4.6
West Virginia	363	46	−33.3	283	+88.7	34	96	+39.1	7,683	−1.8
Wisconsin	1,043	160	+15.9	439	+48.8	444	295	+17.5	9,908	−2.0
Wyoming	225	13	−7.1	200	+17.6	12	66	+6.5	841	−18.5
District of Columbia	511	146	+65.9	358	+43.8	7	149	+24.2	3,040	−16.8

[1] Includes only security-wage placements on work-relief projects.
[2] Computed from comparable reports only.
[3] Data for March not available.

Industrial Classification, Length of Unemployment, and Age of Persons Placed in Employment, October 1935

THE questions of who are the unemployed, how long they have been out of work, how old are the people seeking work, who are getting jobs and what industries are absorbing them are of great interest and importance. Statistics of the operations of the offices of the United States Employment Service provide at least a partial answer to some of these questions.

In the present article are discussed briefly the industrial background, age classification, and length of unemployment of applicants registered by the public employment offices during October 1935, together with the industries in which placements were made and the age grouping of the persons placed, with a comparison of the records of nonrelief and relief registrants.

Industrial Classification

DURING October 1935, offices of the Employment Service registered 639,960 job seekers and made 559,748 placements. Activity in connection with the W. P. A. program was at a high level during October and the public employment offices registered 248,192 applicants with relief status, and made 354,274 placements of relief registrants.

Applications

Two industries accounted for nearly one-half of all male applicants with classifiable work experience who registered with the Employment Service in October. As shown in the industrial classification in table 1, the agriculture, forestry, fishing, and mining classification and the manufacturing industries together were reported as the former field of employment of 48.2 percent of the male registrants with classifiable experience. Although second in order of size for the combined total of relief and nonrelief, manufacturing industries were the chief source of male registrants with relief status. This industrial classification accounted for more than one-quarter of all classified relief men with 32.2 percent reported as having relief status. In comparison, the general average for all industries showed 27.4 percent of the male applicants as having relief status.

Table 1.—Industrial Classification of New Applicants, October 1935

Industry	Men					Women				
	Total		Percent with relief status	Relief		Total		Percent with relief status	Relief	
	Number	Percent		Number	Percent	Number	Percent		Number	Percent
All industries	336,232	100.0	27.4	92,012	100.0	103,175	100.0	31.4	32,406	100.0
Agriculture, forestry, fishing, and mining	89,500	26.6	25.3	22,614	24.6	3,643	3.5	42.6	1,552	4.8
Building and construction	46,774	13.9	24.7	11,540	12.5	286	.3	14.0	40	.1
Manufacturing	72,636	21.6	32.2	23,401	25.4	19,049	18.5	34.5	6,571	20.3
Professional and commercial service and distribution	58,673	17.5	27.1	15,920	17.3	19,807	19.2	21.6	4,269	13.2
Domestic and personal service, hotels, restaurants, and institutions	23,750	7.1	28.5	6,772	7.4	51,845	50.2	35.1	18,201	56.2
Public utilities and transportation	23,129	6.9	29.7	6,866	7.5	1,120	1.1	21.1	236	.7
Governmental service	21,770	6.5	22.5	4,899	5.3	7,425	7.2	20.7	1,537	4.7

Table 1 and chart (p. 1670) do not present the background of the entire group of male registrants, as 39,794 nonrelief men and 40,204 relief men had no industrially classifiable work experience and the industrial classification of 2,266 nonrelief men and 35,509 relief male applicants were not reported for tabulation.

The industrial background of woman applicants is normally characterized by a heavy concentration in a few industrial groups. Half of the woman applicants with classifiable work experience reported housekeeping as the normal field of their former employment. More than a third of the classified woman applicants were from the professional and commercial service and distribution classification and the manufacturing groups. The remaining groups accounted for but 12.1 percent of the woman applicants. In addition to these 103,175 industrially classified woman applicants there were 82,880 whose records could not be industrially classified. This group was composed largely of women without previous work experience, 38,644 women with relief status and 34,553 nonrelief women falling in this group. Records of the industrial background of 9,417 relief women and 266 nonrelief applicants were not available for tabulation.

As indicated in table 1, an average of 31.4 percent of the group of classified woman applicants had relief status. The highest proportion of woman relief applicants in the groups of significant size was in the domestic field where 35.1 percent of these applicants had relief status.

Placements

Placements made by offices of the United States Employment Service may be divided into three general groups, two representing employment in normal gainful employment, the third representing work on relief projects generally operated on a security-wage basis.

First, and of most fundamental long-range importance, are placements in private industry in gainful employment at prevailing wages. During October 1935, 114,749 placements of this type were reported, 72,713 being of men and 42,036 being of women. Included in this number were 20,484 openings filled by persons formerly on relief.

The second group of placements at prevailing wages was composed of those made in regular governmental activities of local, State, and Federal units, on public construction projects and with contractors operating on such projects. Placements of this nature totaled 132,510 during October, 130,758 placements of men and 1,752 placements of women being reported. Included in these placements were 22,505 persons formerly on relief.

Placements on works projects of a relief nature were at a high level during October in connection with the W. P. A. program. Offices of the Employment Service made 312,104 placements, 302,521 of men and 9,583 of women, on projects of this type. Over 99.7 percent of such placements were composed of people with relief status.

Placements in nonrelief employment.—Table 2 and the chart on page 1670 show the industrial classification of the placements in prevailing wage nonrelief employment.

Slightly more than one-half of all prevailing wage nonrelief placements of men were in public building and construction projects, and an additional 11.7 percent of these placements were in local, State, and Federal governmental employment. The largest placements with private employers during the month of October were in the field of agriculture, forestry, and fishing, with manufacturing industries following in order of importance.

Table 2.—Industrial Classification of Persons Placed, October 1935

Industry	Men					Women				
	Total		Percent with relief status	Relief		Total		Percent with relief status	Relief	
	Number	Percent		Number	Percent	Number	Percent		Number	Percent
All industries	203,471	100.0	18.8	38,168	100.0	43,788	100.0	11.0	4,821	100.0
Agriculture, forestry, fishing, and mining	27,321	13.4	26.5	7,238	19.0	915	2.1	19.2	176	3.7
Building and construction:										
Private	8,806	4.3	17.5	1,544	4.0	34	.1	11.8	4	.1
Public	106,863	52.5	19.3	20,643	54.1	103	.2	13.6	14	.3
Manufacturing	13,296	6.5	19.2	2,554	6.7	6,079	13.9	13.0	788	16.3
Professional and commercial service and distribution	9,560	4.7	17.9	1,716	4.5	5,193	11.9	9.9	515	10.7
Domestic and personal service, hotels, restaurants, and institutions	10,882	5.4	20.4	2,220	5.8	29,720	67.9	10.6	3,147	65.3
Public utilities and transportation	2,848	1.4	20.3	578	1.5	95	.2	4.21	4	.1
Governmental service	23,895	11.7	7.0	1,675	4.4	1,649	3.8	10.5	173	3.6

The total of 203,471 placements in prevailing-wage employment included 38,168 persons formerly on relief, equal to 18.8 percent of the total placements in this group. The highest proportion of persons with relief status among men placed was found in the predominantly agricultural group, where 26.5 percent of the placements were filled by persons with relief status.

Placements of women at prevailing-wage employment showed an even higher concentration in the domestic and personal service group than did the records of woman applicants. This group, which includes employment in hotels, restaurants, and institutions as well as in purely household domestic work, accounted for 67.9 percent of all placements of women in prevailing-wage employment. Second to this classification, manufacturing industries had 13.9 percent of the placements of women in nonrelief employment, and professional and commercial service, and distribution accounted for 11.9 percent of these placements. On an average, 11 percent of the 43,788 women placed in nonrelief employment were persons who formerly received assistance from relief.

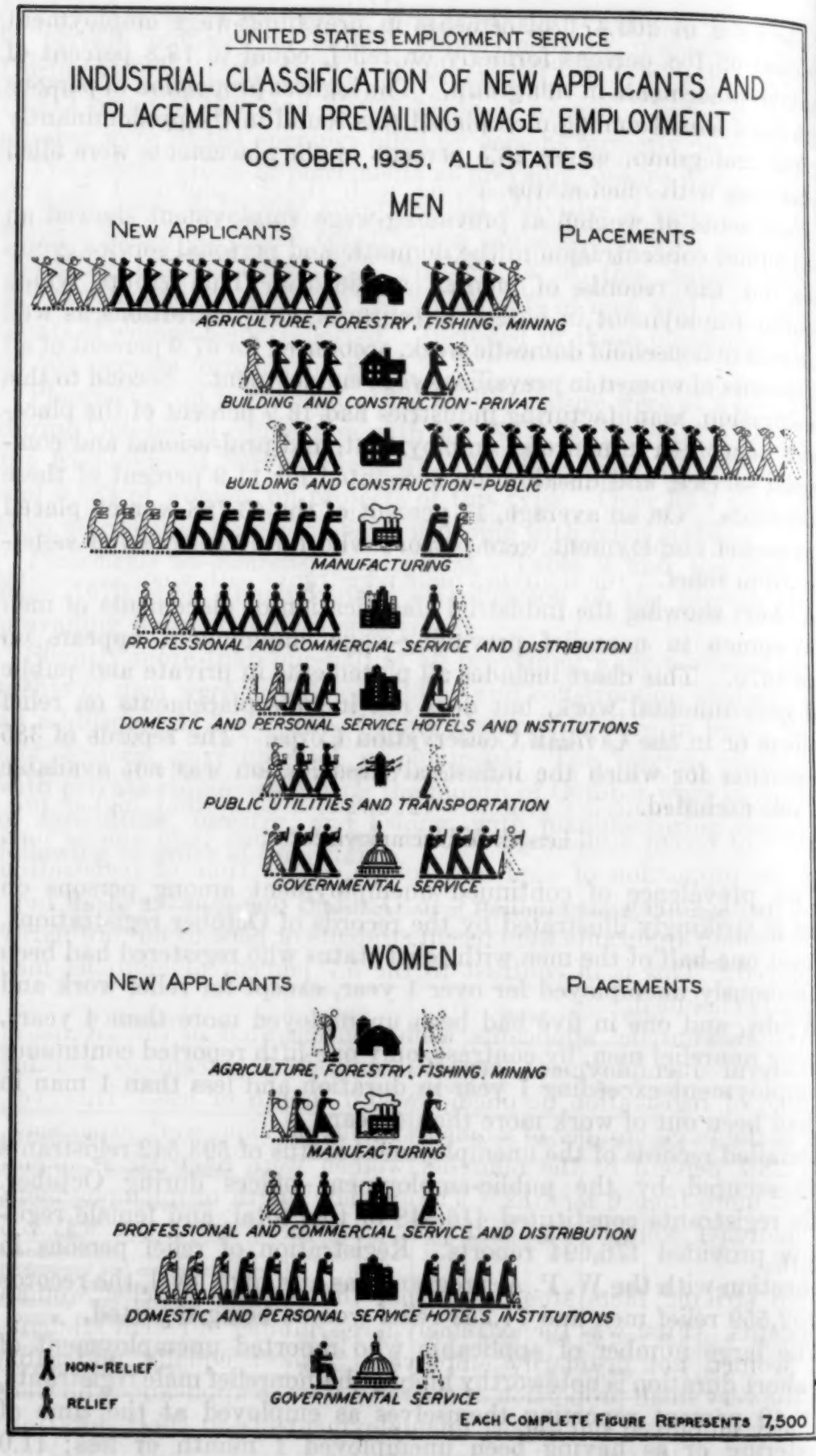
A chart showing the industrial classification of placements of men and women in nonrelief prevailing-wage employment appears on page 1670. This chart includes all placements in private and public and governmental work, but does not include placements on relief projects or in the Civilian Conservation Corps. The records of 385 placements for which the industrial classification was not available are also excluded.

Length of Unemployment

THE prevalence of continued unemployment among persons on relief is strikingly illustrated by the records of October registrations. Almost one-half of the men with relief status who registered had been continuously unemployed for over 1 year, except for relief work and odd jobs, and one in five had been unemployed more than 4 years. Among nonrelief men, by contrast, only one-fifth reported continuous unemployment exceeding 1 year in duration and less than 1 man in 12 had been out of work more than 4 years.

Detailed records of the unemployment status of 593,542 registrants were secured by the public-employment offices during October. Male registrants constituted 416,848 of this total, and female registrants provided 176,694 reports. Registration of relief persons in connection with the W. P. A. program was at a high level, the records of 132,559 relief men and 71,252 relief women being reported.

The large number of applicants who reported unemployment of but short duration is noteworthy among the nonrelief male registrants, over 40 percent reporting themselves as employed at the time of registering or as having been unemployed 1 month or less; 11.0 percent reporting employment at time of registration and 29.9 percent


UNITED STATES EMPLOYMENT SERVICE
INDUSTRIAL CLASSIFICATION OF NEW APPLICANTS AND PLACEMENTS IN PREVAILING WAGE EMPLOYMENT
OCTOBER, 1935, ALL STATES
MEN
NEW APPLICANTS
PLACEMENTS
AGRICULTURE, FORESTRY, FISHING, MINING
BUILDING AND CONSTRUCTION-PRIVATE
BUILDING AND CONSTRUCTION-PUBLIC
MANUFACTURING
PROFESSIONAL AND COMMERCIAL SERVICE AND DISTRIBUTION
DOMESTIC AND PERSONAL SERVICE HOTELS AND INSTITUTIONS
PUBLIC UTILITIES AND TRANSPORTATION
GOVERNMENTAL SERVICE
WOMEN
NEW APPLICANTS
PLACEMENTS
AGRICULTURE, FORESTRY, FISHING, MINING
MANUFACTURING
PROFESSIONAL AND COMMERCIAL SERVICE AND DISTRIBUTION
DOMESTIC AND PERSONAL SERVICE HOTELS INSTITUTIONS
GOVERNMENTAL SERVICE
NON-RELIEF
RELIEF
EACH COMPLETE FIGURE REPRESENTS 7,500

reporting 1 month or less of unemployment. Only 31.0 percent of the nonrelief men had been unemployed more than 6 months at the time they registered. The median length of continuous unemployment of formerly employed nonrelief men was 4.3 months.

The unemployment records of male applicants who had received relief assistance before registering with the Employment Service, showed a strikingly different distribution. Among relief men seeking jobs, there was a much higher incidence of long-continued unemployment, a smaller number of men employed at time of registration, and a relatively greater (but still small) proportion of recent students and persons not ordinarily employed.

The median length of unemployment of the relief men with former employment was 18.3 months, over four times that for the nonrelief men. Sixty percent of the relief men were continuously unemployed over 6 months.

In the classification of longest unemployment, over 48 months, 22.2 percent of the relief male registrants were found, compared to the 7.6 percent of the nonrelief male registrants with a corresponding period of unemployment.

Women who registered with the employment offices during October showed a similar divergence between the relief and nonrelief groups, although the distribution was materially different than for the male applicants. Among female new registrants generally, a much higher proportion of persons not ordinarily employed is usually found, both for relief and nonrelief groups. Likewise, a somewhat higher proportion of recent students is found among women than among men and the proportion of applicants employed at time of registration tends to be somewhat smaller. In October, one quarter of all nonrelief woman applicants were recent students or persons not ordinarily employed. This is in contrast to the 5.7 percent of nonrelief men similarly classified.

Woman nonrelief applicants while concentrated in the groups of short-term unemployment, reported only 27.3 percent as working at time of registration or unemployed 1 month or less. However, due to the large number of women without previous work experience, only 28.7 percent of the nonrelief women were reported as unemployed more than 6 months. The median length of unemployment for nonrelief women who had previously been employed was 5.5 months.

Two striking facts stood out from the records of relief woman applicants. First was the extremely large number of recent students and women not ordinarily employed. Almost equally noticeable was the very small proportion of the relief woman applicants who were formerly employed but report unemployment of but short duration. Nearly one-half of the relief woman applicants were found in the two

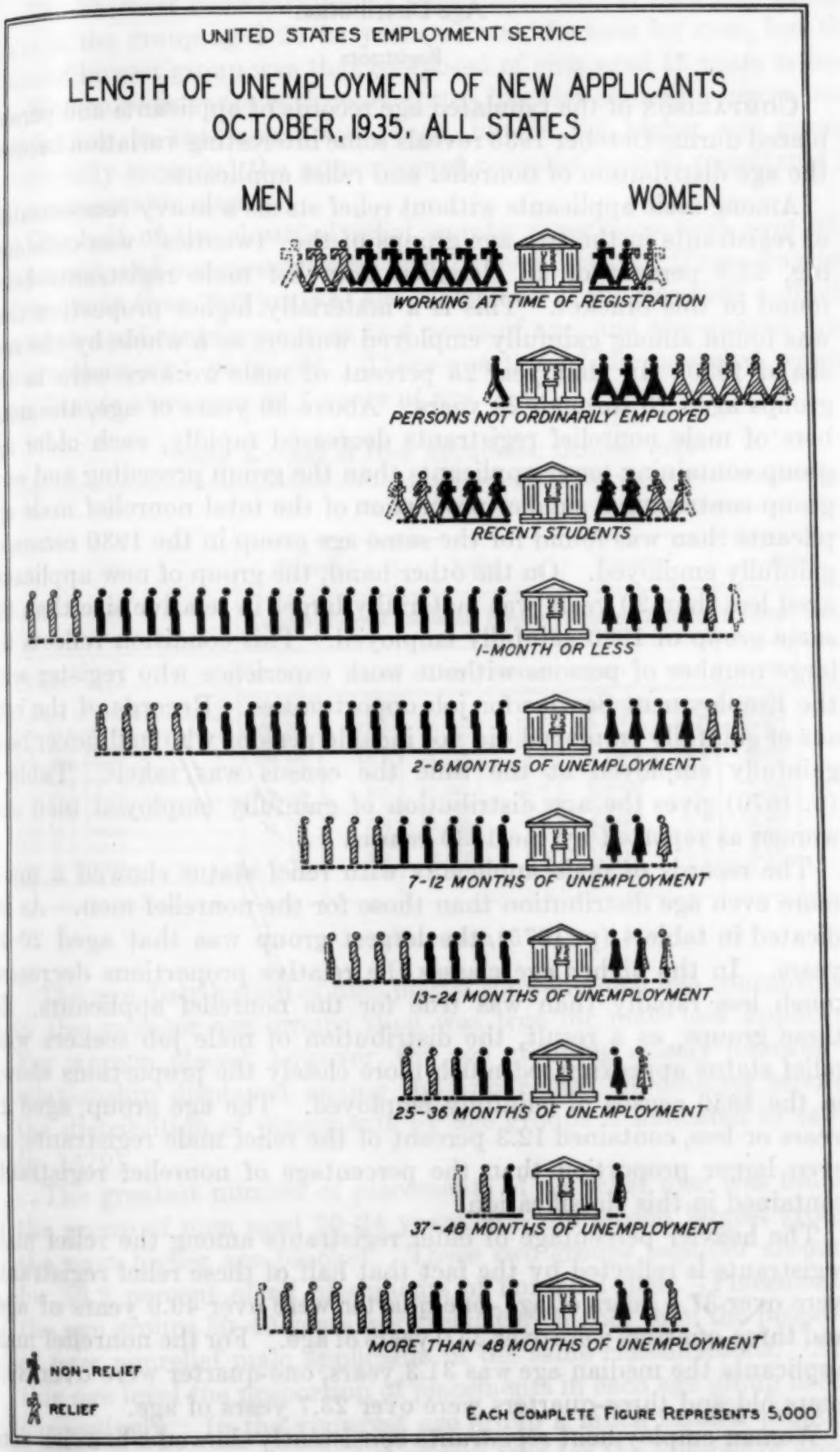
groups without previous work experience. Nearly twice as large a proportion of relief as of nonrelief woman applicants were found in the group not ordinarily employed. The high concentration of relief women in this class was probably partially due to the regulation that all relief employables should register with the employment offices to become eligible for employment on W. P. A. projects.

Only 6.9 percent of the total relief women reported unemployment of 1 month or less and only 10.1 percent from 2 to 6 months. This total of 17.0 percent contrasts with the 39.2 percent of the nonrelief women found in the same groups. At the other end of the scale 11.2 percent of the relief women, the largest group of those previously gainfully employed, reported continuous unemployment exceeding 48 months. The median length of unemployment of previously employed relief woman applicants was 13.6 months, more than twice that for nonrelief women with previous employment records.

A chart of the length of unemployment records of relief and nonrelief men and women Employment Service registrants appears on page 1673. The records of 35,166 relief men and 9,215 relief women and of 1,891 nonrelief men and 146 nonrelief women registered during October 1935 for which length of unemployment information was not available for tabulation were not included in the foregoing comparisons or in the table and chart of length of unemployment.

Table 3.—Length of Unemployment of New Applicants, October 1935

Length of unemployment	Men				Women			
	Nonrelief		Relief		Nonrelief		Relief	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All applicants	284,289	100.0	132,559	100.0	105,442	100.0	71,252	100.0
Working at time of registration	31,227	11.0	9,509	7.2	7,197	6.8	4,927	6.9
Not ordinarily employed	1,997	.7	1,565	1.2	16,812	15.9	22,464	31.5
Recent students	14,285	5.0	8,473	6.4	9,877	9.4	8,082	11.3
Unemployed—								
1 month or less	85,121	29.9	13,159	9.9	21,636	20.5	4,950	6.9
2 to 6 months	63,928	22.5	20,393	15.4	19,721	18.7	7,186	10.1
7 to 12 months	27,405	9.6	15,651	11.8	9,502	9.0	5,490	7.7
13 to 24 months	20,949	7.4	16,251	12.3	7,317	6.9	5,254	7.4
25 to 36 months	12,371	4.4	12,262	9.3	4,128	3.9	3,529	5.0
37 to 48 months	5,522	1.9	5,894	4.4	1,700	1.6	1,422	2.0
More than 48 months	21,484	7.6	29,402	22.2	7,552	7.2	7,948	11.


UNITED STATES EMPLOYMENT SERVICE
LENGTH OF UNEMPLOYMENT OF NEW APPLICANTS
OCTOBER, 1935. ALL STATES
MEN
WOMEN
WORKING AT TIME OF REGISTRATION
PERSONS NOT ORDINARILY EMPLOYED
RECENT STUDENTS
1-MONTH OR LESS
2-6 MONTHS OF UNEMPLOYMENT
7-12 MONTHS OF UNEMPLOYMENT
13-24 MONTHS OF UNEMPLOYMENT
25-36 MONTHS OF UNEMPLOYMENT
37-48 MONTHS OF UNEMPLOYMENT
MORE THAN 48 MONTHS OF UNEMPLOYMENT
NON-RELIEF
RELIEF
EACH COMPLETE FIGURE REPRESENTS 5,000

Age Distribution

Registrants

COMPARISON of the tabulated age records of applicants and persons placed during October 1935 reveals some interesting variation between the age distribution of nonrelief and relief applicants.

Among male applicants without relief status a heavy concentration of registrants in the two age groups of the "twenties" was outstanding, 35.8 percent of all classified nonrelief male registrants being found in this bracket. This is a materially higher proportion than was found among gainfully employed workers as a whole by the census of 1930. In that year 25 percent of male workers were in the groups aged 20 through 29 years. Above 30 years of age, the numbers of male nonrelief registrants decreased rapidly, each older age group containing fewer applicants than the group preceding and each group containing a smaller proportion of the total nonrelief male applicants than was found for the same age group in the 1930 census of gainfully employed. On the other hand, the group of new applicants aged less than 20 years was materially larger in relative size than the same group of 1930 gainfully employed. This condition reflects the large number of persons without work experience who register with the Employment Service for job opportunities. Records of the census of gainfully employed did not include persons who had never been gainfully employed at the time the census was taken. Table 6 (p. 1679) gives the age distribution of gainfully employed men and women as reported by the 1930 census.

The records of male applicants with relief status showed a much more even age distribution than those for the nonrelief men. As indicated in table 4 (p. 1675), the largest group was that aged 20–24 years. In the higher age classes the relative proportions decreased much less rapidly than was true for the nonrelief applicants. In these groups, as a result, the distribution of male job seekers with relief status approximated much more closely the proportions shown in the 1930 census of gainfully employed. The age group, aged 19 years or less, contained 12.3 percent of the relief male registrants, an even larger proportion than the percentage of nonrelief registrants contained in this classification.

The heavier percentage of older registrants among the relief male registrants is reflected by the fact that half of these relief registrants were over 37.4 years of age, one-quarter were over 49.9 years of age, and three-quarters were over 25.0 years of age. For the nonrelief male applicants the median age was 31.3 years, one-quarter were over 39.3 years old and three-quarters were over 23.7 years of age.

Woman employment registrants consistently showed a heavier concentration in the younger age groups than did the men. This condition was true for both the relief and nonrelief groups of registrants.

The heaviest concentration of registrants among nonrelief women was in the group aged 20–24 years, as was the case for men, but the second largest group was that composed of girls aged 19 years or less.

Women registrants with relief status likewise showed a heavy concentration in the lowest age range, but in the higher age groups materially exceeded the proportion of nonrelief woman registrants in the comparable classes.

One-half of the classified relief woman registrants were over 33.1 years old, and one-quarter were aged over 45.3 years. Three-quarters were more than 22.2 years of age. One-half of the classified nonrelief woman applicants were over 28.4 years of age, and one-quarter were more than 40.1 years old. Three-quarters of the nonrelief woman applicants were over 21.7 years of age.

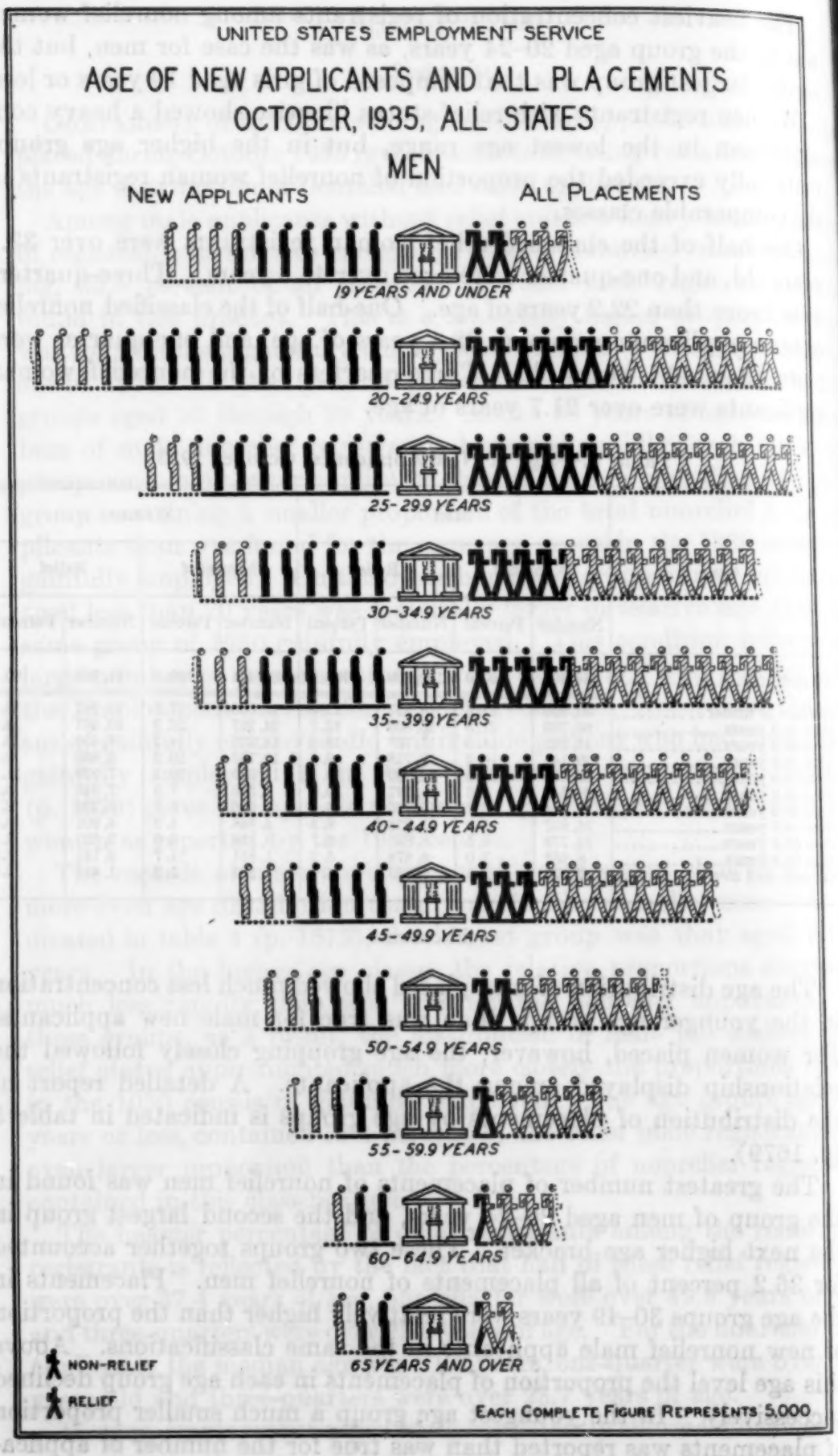
Table 4.—Age of New Applicants, October 1935

Age	Men				Women			
	Nonrelief		Relief		Nonrelief		Relief	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	284,403	100.0	132,599	100.0	105,461	100.0	71,362	100.0
19 years or under	32,859	11.6	16,337	12.3	18,066	17.1	13,247	18.6
20 to 24.9 years	60,709	21.3	16,805	12.7	24,217	23.0	10,661	14.9
25 to 29.9 years	41,242	14.5	13,707	10.3	14,929	14.2	7,405	10.4
30 to 34.9 years	29,141	10.2	12,718	9.6	10,753	10.2	6,860	9.6
35 to 39.9 years	28,377	10.0	13,909	10.5	11,029	10.5	7,929	11.1
40 to 44.9 years	24,548	8.6	13,297	10.0	8,310	7.9	7,046	9.9
45 to 49.9 years	21,864	7.7	12,926	9.7	7,086	6.7	6,234	8.7
50 to 54.9 years	16,857	5.9	11,258	8.5	4,848	4.6	4,901	6.9
55 to 59.9 years	12,779	4.5	8,891	6.7	3,118	3.0	3,521	4.9
60 to 64.9 years	8,651	3.0	6,878	5.2	1,811	1.7	2,141	3.0
65 years and over	7,376	2.6	5,873	4.4	1,294	1.2	1,417	2.0

Placements

The age distribution of men placed showed much less concentration in the younger age groups than was true for male new applicants. For women placed, however, the age grouping closely followed the relationship displayed among the applicants. A detailed report of the distribution of placements by age groups is indicated in table 5 (p. 1679).

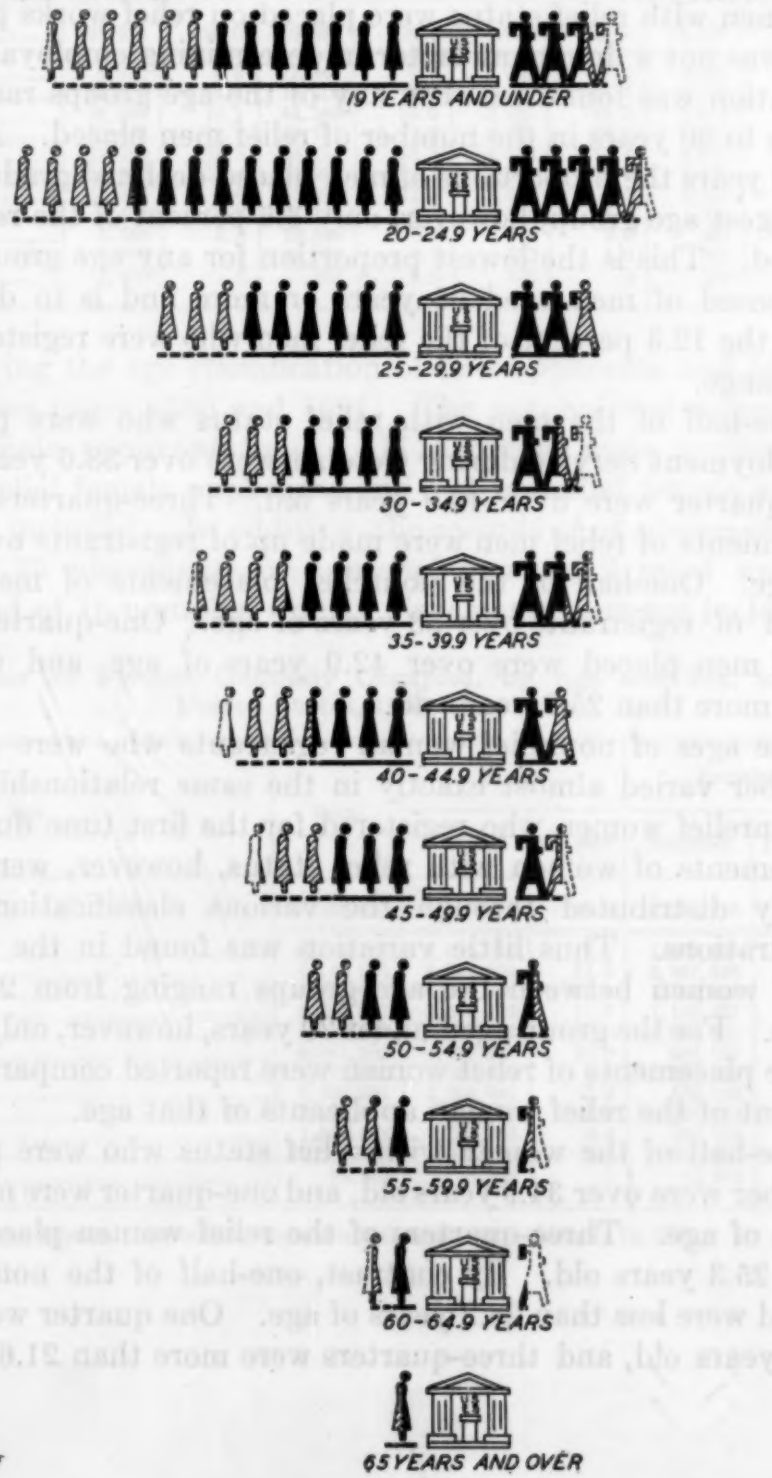
The greatest number of placements of nonrelief men was found in the group of men aged 20–24 years, and the second largest group in the next higher age bracket. These two groups together accounted for 36.2 percent of all placements of nonrelief men. Placements in the age groups 30–49 years were relatively higher than the proportion of new nonrelief male applicants in the same classifications. Above this age level the proportion of placements in each age group declined successively. In the youngest age group a much smaller proportion of placements was reported than was true for the number of applica-


UNITED STATES EMPLOYMENT SERVICE
AGE OF NEW APPLICANTS AND ALL PLACEMENTS
OCTOBER, 1935, ALL STATES
MEN
NEW APPLICANTS
ALL PLACEMENTS
19 YEARS AND UNDER
20-24.9 YEARS
25-29.9 YEARS
30-34.9 YEARS
35-39.9 YEARS
40-44.9 YEARS
45-49.9 YEARS
50-54.9 YEARS
55-59.9 YEARS
60-64.9 YEARS
65 YEARS AND OVER
NON-RELIEF
RELIEF
EACH COMPLETE FIGURE REPRESENTS 5,000

UNITED STATES EMPLOYMENT SERVICE

AGE OF NEW APPLICANTS AND ALL PLACEMENTS OCTOBER, 1935, ALL STATES

WOMEN



EACH COMPLETE FIGURE REPRESENTS 2,500

tions for the same age. Only 5.9 percent of the placements of nonrelief men were of young men, aged 19 or less, as compared to the 11.6 percent of the nonrelief male applicants of that age.

Placements of men with relief status were more evenly distributed through the various age groups than were the placements of nonrelief men. This was largely due to the fact that 88.8 percent of the men with relief status were placed on relief-works projects where age was not a dominant factor in determining employability. Little variation was found between any of the age groups ranging from 20 years to 50 years in the number of relief men placed. Above the age of 50 years the proportions of men placed declined gradually. In the youngest age group, however, only 3.6 percent of the relief men were placed. This is the lowest proportion for any age group except that composed of men aged 65 years or more and is in direct contrast with the 12.3 percent of the relief men who were registered from this age range.

One-half of the men with relief status who were placed by the Employment Service during October were over 38.6 years of age, and one-quarter were over 48.9 years old. Three-quarters of the relief placements of relief men were made up of registrants over 28.9 years of age. One-half of the nonrelief placements of men were composed of registrants over 33 years of age. One-quarter of the nonrelief men placed were over 42.9 years of age, and three-quarters were more than 25.0 years old.

The ages of nonrelief woman registrants who were placed during October varied almost exactly in the same relationship as the ages of nonrelief women who registered for the first time during October. Placements of women with relief status, however, were much more evenly distributed through the various classifications than were registrations. Thus little variation was found in the proportion of relief women between the age groups ranging from 20 through 44 years. For the group aged under 20 years, however, only 11.1 percent of the placements of relief women were reported compared to the 18.6 percent of the relief woman applicants of that age.

One-half of the women with relief status who were placed during October were over 34.9 years old, and one-quarter were more than 44.4 years of age. Three-quarters of the relief women placed were more than 25.3 years old. By contrast, one-half of the nonrelief women placed were less than 28.2 years of age. One quarter were more than 39.2 years old, and three-quarters were more than 21.6 years of age.

Table 5.—Age of Persons Placed, October 1935

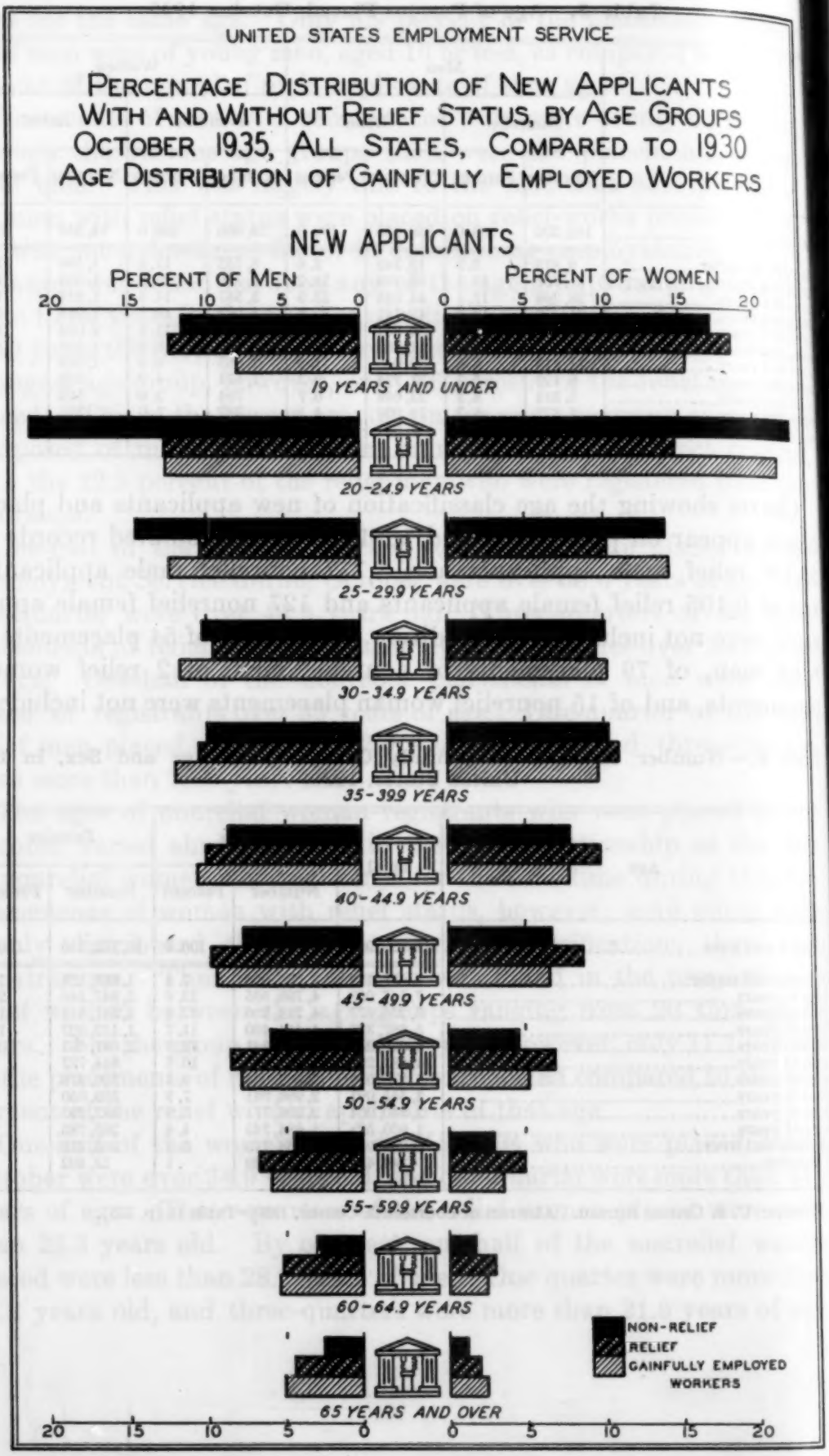
Age	Men				Women			
	Nonrelief		Relief		Nonrelief		Relief	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	166,320	100.0	339,866	100.0	39,060	100.0	14,352	100.0
19 years or under	9,875	5.9	12,349	3.6	6,752	17.3	1,590	11.1
20 to 24.9 years	31,757	19.1	38,219	11.2	9,199	23.6	1,900	13.2
25 to 29.9 years	28,369	17.1	44,248	13.0	5,587	14.3	1,814	12.6
30 to 34.9 years	21,453	12.9	42,741	12.6	4,027	10.3	1,914	13.3
35 to 39.9 years	22,181	13.3	44,951	13.2	4,462	11.4	2,092	14.6
40 to 44.9 years	18,979	11.4	41,982	12.4	3,462	8.9	1,679	11.7
45 to 49.9 years	14,313	8.6	39,048	11.5	2,685	6.9	1,369	9.5
50 to 54.9 years	9,492	5.7	31,774	9.3	1,574	4.0	958	6.7
55 to 59.9 years	5,534	3.3	22,643	6.7	794	2.0	562	3.9
60 to 64.9 years	2,877	1.7	14,030	4.1	382	1.0	305	2.1
65 years and over	1,490	.9	7,881	2.3	136	.3	169	1.2

Charts showing the age classification of new applicants and placements appear on pages 1680 and 1681. The untabulated records of 35,126 relief male applicants and 1,777 nonrelief male applicants, and of 9,105 relief female applicants and 127 nonrelief female applicants were not included. In addition, the records of 54 placements of relief men, of 79 placements of nonrelief men, of 2 relief woman placements, and of 15 nonrelief woman placements were not included.

Table 6.—Number of Persons Gainfully Occupied, by Age and Sex, in the United States, 1930.[1]

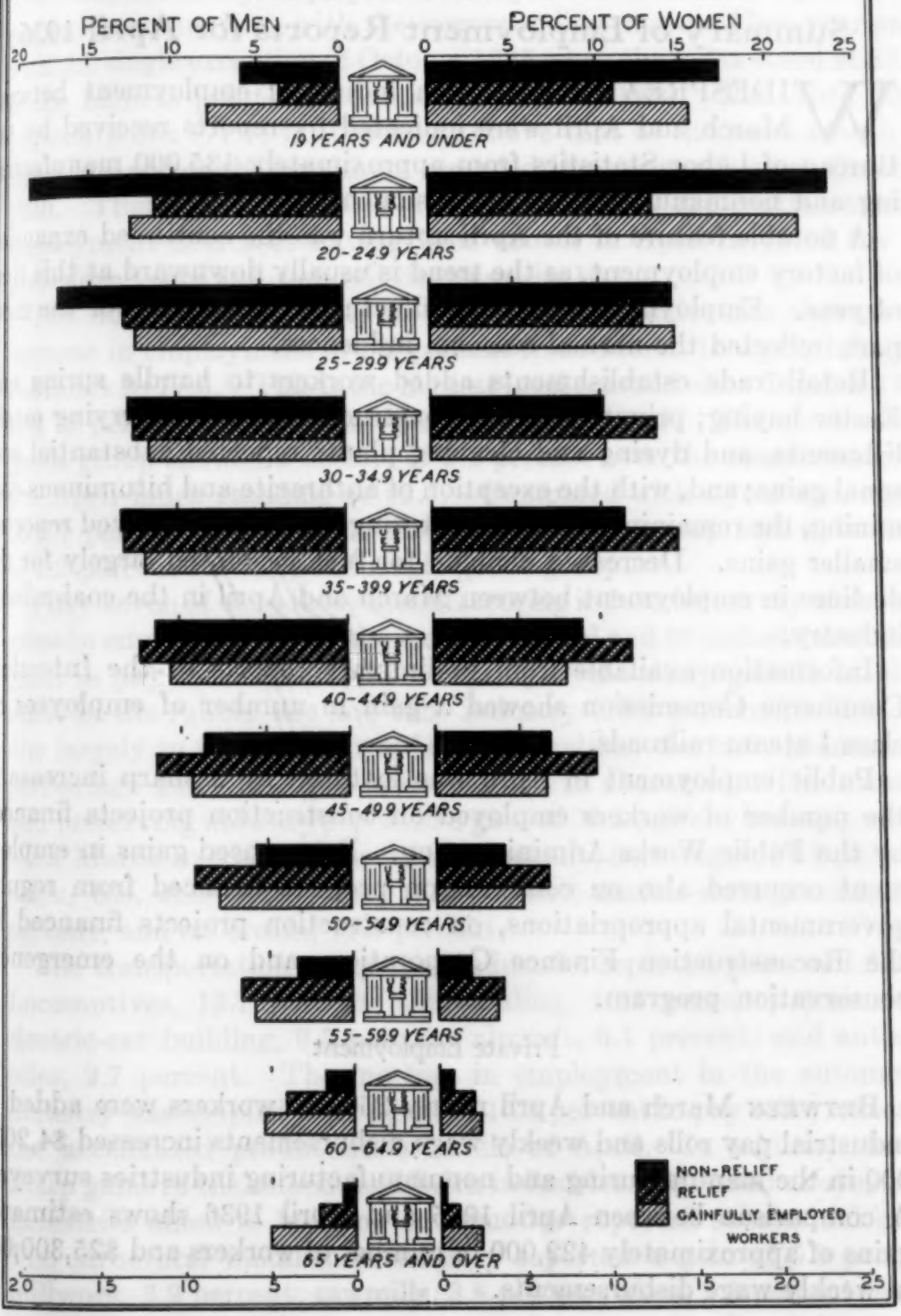
Age	Total	Males		Females	
		Number	Percent	Number	Percent
10 years and over	48,829,920	38,077,804	100.0	10,752,116	100.0
19 years and under	4,688,172	3,025,004	7.9	1,663,168	15.5
20 to 24 years	7,147,053	4,799,505	12.6	2,347,548	21.8
25 to 29 years	6,255,677	4,714,266	12.4	1,541,411	14.3
30 to 34 years	5,567,327	4,454,400	11.7	1,112,927	10.4
35 to 39 years	5,619,242	4,571,641	12.0	1,047,601	9.7
40 to 44 years	4,881,298	4,036,561	10.6	844,737	7.9
45 to 49 years	4,276,070	3,569,094	9.4	706,976	6.6
50 to 54 years	3,555,091	2,996,041	7.9	559,050	5.2
55 to 59 years	2,640,064	2,256,771	5.9	383,293	3.6
60 to 64 years	1,950,528	1,684,743	4.4	265,785	2.5
65 years and over	2,204,967	1,938,749	5.1	266,218	2.5
Unknown	44,431	31,029	.1	13,402	.1

[1] Source: U. S. Census Bureau. Abstract of Fourteenth Census, 1930—Table 15 (p. 335).


UNITED STATES EMPLOYMENT SERVICE
PERCENTAGE DISTRIBUTION OF NEW APPLICANTS WITH AND WITHOUT RELIEF STATUS, BY AGE GROUPS OCTOBER 1935, ALL STATES, COMPARED TO 1930 AGE DISTRIBUTION OF GAINFULLY EMPLOYED WORKERS
NEW APPLICANTS
PERCENT OF MEN
PERCENT OF WOMEN
20 15 10 5 0
0 5 10 15 20
19 YEARS AND UNDER
20-24.9 YEARS
25-29.9 YEARS
30-34.9 YEARS
35-39.9 YEARS
40-44.9 YEARS
45-49.9 YEARS
50-54.9 YEARS
55-59.9 YEARS
60-64.9 YEARS
65 YEARS AND OVER
NON-RELIEF
RELIEF
GAINFULLY EMPLOYED WORKERS

UNITED STATES EMPLOYMENT SERVICE

PERCENTAGE DISTRIBUTION OF PERSONS PLACED WITH AND WITHOUT RELIEF STATUS, BY AGE GROUPS OCTOBER 1935, ALL STATES, COMPARED TO 1930 AGE DISTRIBUTION OF GAINFULLY EMPLOYED WORKERS



TREND OF EMPLOYMENT AND PAY ROLLS

Summary of Employment Reports for April 1936

WIDESPREAD increases in industrial employment between March and April were indicated by reports received by the Bureau of Labor Statistics from approximately 135,000 manufacturing and nonmanufacturing establishments.

A notable feature of the April upturn was the continued expansion of factory employment, as the trend is usually downward at this time of year. Employment in nonmanufacturing industries, for the most part, reflected the normal seasonal influences.

Retail-trade establishments added workers to handle spring and Easter buying; private building-construction firms, quarrying establishments, and dyeing and cleaning plants reported substantial seasonal gains; and, with the exception of anthracite and bituminous-coal mining, the remaining nonmanufacturing industries surveyed reported smaller gains. Decreased demand for fuel accounted largely for the declines in employment between March and April in the coal-mining industry.

Information available from preliminary reports of the Interstate Commerce Commission showed a gain in number of employees on class I steam railroads.

Public employment in April was featured by a sharp increase in the number of workers employed on construction projects financed by the Public Works Administration. Pronounced gains in employment occurred also on construction projects financed from regular governmental appropriations, on construction projects financed by the Reconstruction Finance Corporation, and on the emergency-conservation program.

Private Employment

BETWEEN March and April nearly 250,000 workers were added to industrial pay rolls and weekly wage disbursements increased $4,200,000 in the manufacturing and nonmanufacturing industries surveyed. A comparison between April 1935 and April 1936 shows estimated gains of approximately 422,000 in number of workers and $25,300,000 in weekly wage disbursements.

These estimates are based on reports received from approximately 135,000 establishments employing more than 7,200,000 workers whose weekly earnings during the pay period ending nearest April 15 totaled $168,000,000.

Factory employment increased 1.2 percent over the month interval and pay rolls, 2.1 percent. These increases represent gains of approximately 80,000 in number of workers and $3,300,000 in weekly wages. The index of factory employment for April stands at 85.1, a gain of 3.0 percent in comparison with the corresponding month of last year and, with the single exception of October 1935 when the index stood at 85.3, is the highest point recorded since October 1930. The April 1936 pay-roll index (77.9) is 10 percent above that of the same month of last year, and is the maximum recorded in any month since October 1930. These gains are noteworthy because they are contraseasonal, employment decreases having been shown in April in 10 of the 17 preceding years and pay-roll decreases in 12.

The durable-goods group of manufacturing industries showed an increase in employment of 2.5 percent from March to April, bringing the index to 77.6. This is the highest level reached since October 1930 and 77 percent above the low point of March 1933. The nondurable-goods group showed a decline of 0.1 percent over the month interval, the April index standing at 93.1. Compared with a year ago, a gain of 8.1 percent is shown for the durable-goods group and a decrease of 1.2 percent for the nondurable-goods group.

Fifty-seven of the ninety manufacturing industries surveyed showed gains in employment over the month interval and 50 industries showed gains in pay rolls. With the exception of the sharp gain in employment in the rubber tire and tube industry (28.2 percent), which was due largely to a settlement of labor difficulties, the more pronounced percentage gains in April were seasonal in character. The canning and preserving industry reported a gain of 20.3 percent in employment from March to April; cement, 17.9 percent; beet sugar, 14.3 percent; brick, tile, and terra cotta, 13.1 percent; marble-slate-granite, 11.7 percent; and ice cream, 11.3 percent.

The transportation equipment industries reported gains as follows: Locomotives, 13.7 percent; shipbuilding, 10.1 percent; steam- and electric-car building, 9.5 percent; aircraft, 6.1 percent; and automobiles, 2.7 percent. The increase in employment in the automobile industry was coupled with a gain of 15.5 percent in pay rolls, reflecting the accelerated production schedule of April. In addition to the sharp gains in the cement and brick industries mentioned above, other industries allied to building construction reported substantial gains. The structural metalwork industry reported a gain of 5.9 percent; millwork, 3.2 percent; sawmills, 3.8 percent; glass, 2.3 percent; steam and hot-water heating apparatus, 3.0 percent; and cast-iron pipe,

2.8 percent. Among the industries of major importance which showed gains in employment were blast furnaces, steel works, and rolling mills (3.0 percent); electrical machinery (4.2 percent); foundries (2.7 percent); petroleum refining (1.7 percent); and newspapers and periodicals (0.9 percent). In the blast furnaces, steel works, and rolling mills industry the April gain raised the level of employment above that of any month since November 1930. Employment in the machine-tool industry continued to expand, the rise of 1.3 percent in April marking the 18th month in which consecutive gains have been shown. The April employment index for this industry (105.9), which is a barometer of orders placed for power-driven metal-cutting machinery, stands above the level reported in any month since October 1930 and is 250 percent above the low point registered in this industry in April 1933. The agricultural-implement industry also continued the forward movement which has been shown consistently each month since October of last year. The increase of 1.3 percent in employment in April raised the April employment index to 140.4, which is the highest level reported in any month since March 1930.

With the exception of the seasonal decline of 30.9 percent in employment in the cottonseed oil, cake, and meal industry, the major portion of the declines were not pronounced. The rayon and allied products industry showed a decrease of 6.0 percent in employment, due primarily to curtailment of operations because of repair work made necessary by floods, and woolen and worsted goods establishments reported a loss of 5.6 percent over the month interval. Seasonal decreases of 4.9 percent and 4.5 percent, respectively, were reported in the millinery and confectionery industries; the fertilizer industry showed a falling-off of 2.4 percent; and explosives showed a decrease of 4.6 percent. Boot and shoe establishments showed a seasonal drop of 3.5 percent and the men's clothing industry, having passed the peak of seasonal activity, reported 3.2 percent fewer employees. Employment in the jewelry industry declined 2.4 percent in April, and in the remaining 23 industries which reported decreased employment, the decreases were 1.8 percent or less.

Fourteen of the sixteen nonmanufacturing industries surveyed absorbed additional workers between March and April and 11 showed gains in pay rolls.

Reports from 55,882 retail establishments employing 929,501 workers in April 1936 showed an increase of 4.1 percent in employment over the month interval. In addition to a seasonal gain of 7.2 percent in employment in the group of general merchandising establishments, gains were reported generally in other lines of retail trade. Among them were apparel stores with a seasonal increase of 12.0 percent, retail lumber and building material firms (3.5 percent), automotive

firms (3.2 percent), retail hardware and furniture establishments (2.9 percent and 2.3 percent, respectively), and retail food stores (0.8 percent).

Employment by wholesale trade firms showed a slight gain (0.1 percent) from March to April, based on reports from 16,046 establishments employing 308,862 workers in April. Among the more important lines of wholesale trade in which gains were shown were lumber and building materials (3.1 percent), food products (2.5 percent), chemicals and drugs (0.5 percent), automotive (1.4 percent), hardware (0.9 percent), petroleum (0.6 percent), and machinery, equipment, and supplies (1.4 percent).

Among the remaining 12 nonmanufacturing industries which showed increased employment were electric light and power (1.4 percent), metal mining (2.9 percent), quarrying and nonmetallic mining (14.6 percent), dyeing and cleaning (9.5 percent), and building construction (15.5 percent). The April employment index for electric light and power stands at the highest level recorded since January 1932, and for metal mining at the highest point since June 1931. April marks the ninth consecutive month in which the latter industry has registered employment gains.

The two nonmanufacturing industries which showed declines in employment were anthracite mining (5.2 percent) and bituminous-coal mining (3.7 percent). The pay-roll declines for these industries were more pronounced, not only because of a seasonal reduction in avearge hours worked per week, but also because of holidays during the April pay period covered, and unsettled labor conditions in certain anthracite fields.

Preliminary reports of the Interstate Commerce Commission showed 1,037,611 workers (exclusive of executives and officials) employed by class 1 railroads in April 1936. This represents a gain of 2.8 percent over March, when 1,009,071 workers were employed. Information concerning pay rolls in April was not available at the time this report was prepared. The total compensation of all employees except executives and officials was $144,859,291 in March and $143,544,141 in February, a gain of 0.9 percent over the month interval. The preliminary indexes of employment, compiled by the Interstate Commerce Commission and based on the 3-year average 1923–25 as 100, are 58.8 for April and 57.3 for March. The final February index is 57.8.

Hours and earnings.—Average hours worked per week in the manufacturing industries surveyed were 38.7 in April, a gain of 0.5 percent over March. Hourly earnings were 0.1 percent higher in April than in March, the average for April being 57.3 cents. Average weekly earnings climbed 0.9 percent to $22.69 over the month interval.

Five of the fourteen nonmanufacturing industries for which man-hour data are compiled showed gains in average hours worked per week ranging from 0.6 percent in quarrying and nonmetallic mining to 3.2 percent in building construction. Seven industries showed increased hourly rates ranging from 0.3 percent in laundries to 1.3 percent in quarrying and nonmetallic mining. Among the industries showing decreases in hours worked per week were anthracite mining (25.4 percent) and bituminous-coal mining (8.3 percent). All of the industries which reported increased hours, except electric light and power, also reported gains in weekly earnings. The two industries (brokerage and insurance), for which man-hour data are not available, also reported increases in average weekly earnings.

Table 1.—Employment, Pay Rolls, and Weekly Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, April 1936 (Preliminary Figures)

Industry	Employment			Pay roll			Per capita weekly earnings		
	Index, April 1936	Percentage change from—		Index, April 1936	Percentage change from—		Average in April 1936	Percentage change from—	
		March 1936	April 1935		March 1936	April 1935		March 1936	April 1935
	(1923–25 =100)			*(1923–25 =100)*					
All manufacturing industries	85.1	+1.2	+3.0	77.9	+2.1	+10.0	$22.69	+0.9	+6.8
Class I steam railroads [1]	58.8	+2.6	+7.5	[2]	[2]	[2]	[2]	[2]	[2]
	(1929= 100)			*(1929= 100)*					
Coal mining:									
Anthracite	49.8	−5.2	−5.3	28.6	−32.8	−42.6	16.72	−29.1	−39.4
Bituminous	77.5	−3.7	+4.3	62.6	−10.8	+39.0	20.65	−7.4	+33.2
Metalliferous mining	57.5	+2.9	+25.1	45.5	+.7	+42.7	24.25	−2.2	+14.3
Quarrying and nonmetallic mining	48.4	+14.6	+6.9	36.1	+16.8	+25.1	18.36	+1.9	+16.9
Crude-petroleum producing	71.2	+.6	−4.9	56.9	+1.9	+.4	29.32	+1.2	+5.7
Public utilities:									
Telephone and telegraph	70.8	+.9	+1.6	76.0	−1.6	+4.0	28.80	−2.4	+2.3
Electric light and power and manufactured gas	88.0	+1.4	+6.5	86.2	+.4	+9.1	31.51	−1.0	+2.4
Electric-railroad and motor-bus operation and maintenance	71.3	+.1	−.2	65.9	−2.8	+4.1	29.88	−2.9	+4.3
Trade:									
Wholesale	85.7	+.1	+3.0	67.9	−1.5	+4.8	28.04	−1.7	+1.7
Retail	85.2	+4.1	+2.0	65.3	+2.8	+4.5	20.42	−1.2	+2.4
General merchandising	97.4	+7.2	+3.1	81.0	+4.8	+4.5	17.21	−2.2	+1.3
Other than general merchandising	82.0	+3.1	+1.6	62.1	+2.4	+4.6	23.22	−.7	+2.9
Hotels (cash payments only) [3]	83.2	+.5	+2.6	66.3	+.4	+4.2	14.01	−.1	+1.7
Laundries	83.2	+1.4	+4.0	70.9	+1.4	+8.3	15.85	+.1	+4.0
Dyeing and cleaning	81.8	+9.5	+2.4	64.1	+13.7	+3.6	19.19	+3.8	+1.2
Brokerage	[2]	+.4	+29.7	[2]	+1.8	+39.6	37.30	+1.4	+7.6
Insurance	[2]	+.2	+.8	[2]	+1.0	+3.7	37.83	+.8	+2.9
Building construction	[2]	+15.5	+19.2	[2]	+20.3	+33.8	25.57	+4.2	+12.2

[1] Preliminary; source—Interstate Commerce Commission.
[2] Not available.
[3] Cash payments only; the additional value of board, room, and tips cannot be computed.

Table 1 presents a summary of employment and pay-roll indexes and average weekly earnings in April 1936 for all manufacturing industries combined, for selected nonmanufacturing industries, and for class I railroads, with percentage changes over the month and

year intervals except in the few industries for which certain items cannot be computed. The indexes of employment and pay rolls for the manufacturing industries are based on the 3-year average 1923–25 as 100 and for the nonmanufacturing industries, on the 12-month average for 1929 as 100.

Public Employment

EMPLOYMENT on construction projects financed from Public Works Administration funds increased in April. During the month more than 264,000 wage earners were employed, a gain of 31 percent compared with March. On Federal and non-Federal projects financed from funds provided by the National Industrial Recovery Act, substantial employment gains were registered. The number of workers engaged on non-Federal projects financed from funds provided by the Emergency Relief Appropriation Act of 1935 increased from less than 61,000 in March to more than 107,000 in April. Total pay-roll disbursements in April amounted to $18,916,000, an increase of $4,934,000 in comparison with the previous month.

Employment on construction projects financed from regular governmental appropriations in April was the highest of any month since November 1935. During the month, the number of wage earners totaled 60,000, a gain of 26.4 percent compared with the previous month. Increases in employment occurred on every type of construction project with the exception of miscellaneous projects. The most pronounced gains were registered on building-construction projects and on public-road work. Pay-roll disbursements in April totaled $5,205,000, an increase of $1,530,000 compared with March.

A substantial increase in the number of workers employed on construction projects financed by the Reconstruction Finance Corporation was reported in April. More wage earners were employed on this program during the month than for any month since June 1935. Compared with March, employment in April showed an increase of 23.2 percent. Every type of project except reclamation work registered gains in the number of workers employed. Pay-roll disbursements totaled $1,134,000, an increase of $218,000 as compared with March.

Employment on projects financed by The Works Program declined during April. Compared with March there was a decrease of approximately 138,000 in the number of workers engaged on this program. Employment on Federal projects totaled 376,000, an increase of 15.5 percent over March. On projects operated by the Works Progress Administration, the number of wage earners employed decreased from 3,045,000 in March to 2,857,000 in April. Total pay-roll disbursements of $160,056,000 were $2,797,000 greater than in March.

In the regular agencies of the Federal Government, increases in the number of employees were reported for the executive, military, and legislative branches; a small decrease, however, occurred in the judicial service. Employment in the executive service increased less than 1 percent in April, but compared with a year ago showed an increase of 14 percent. Of the 810,767 employees in the executive service in April, 115,422 were working in the District of Columbia and 695,345 outside the District. The most marked increase in employment in the executive departments of the Federal Government in April was reported for the War Department. Appreciable gains also occurred in the Veterans' Administration, the Department of Interior, and the Resettlement Administration. Substantial decreases in the number of workers, on the other hand, occurred in the Works Progress Administration, the Home Owners' Loan Corporation, the Department of Agriculture, and the Farm Credit Administration.

In emergency conservation work (Civilian Conservation Camps) employment increased sharply in April. As against 354,000 workers in March 389,000 were engaged on this program in April, an increase of 35,000. Gains in employment were registered in the enrolled personnel and educational adviser groups. Losses, on the other hand, occurred in the reserve officer and supervisory and technical groups. Pay rolls for the month were $18,022,000, an increase of approximately $809,000 over March pay rolls.

The number of workers employed on the construction and maintenance of State roads in April was 154,644, an increase of 13,108 compared with employment in the previous month. Substantial gains were registered on new road construction and on maintenance work. Of the total number employed on this program, 11,339 or 7.3 percent were engaged in new road construction and 143,305 or 92.7 percent in maintenance work. Pay-roll disbursements for the month totaled $8,918,000, an increase of $1,228,000 compared with disbursements in March.

A summary of Federal employment and pay-roll statistics for April is presented in table 2.

Table 2.—Summary of Federal Employment and Pay Rolls, April 1936 (Preliminary Figures)

Class	Employment		Percentage change	Pay roll		Percentage change
	April 1936	March 1936		April 1936	March 1936	
Federal service:						
Executive [1]	[3] 810,767	806,404	+0.5	$125,190,144	[4] $124,681,049	+0.4
Judicial	1,924	1,934	−.5	511,303	487,373	+4.9
Legislative	4,945	4,939	+.1	1,172,205	1,175,945	−.3
Military	257,394	294,609	+.9	22,442,140	[4] 22,366,383	+.3
Construction projects:						
Financed by P. W. A	[5] 264,427	[6] 202,336	+30.7	[5] 18,915,663	[6] 13,981,176	+35.3
Financed by R. F. C	[7] 10,021	[8] 8,134	+23.2	[7] 1,133,880	[8] 916,059	+23.8
Financed by regular governmental appropriations	60,107	47,538	+26.4	5,205,353	3,674,896	+41.6
The Works Program: [9]						
Federal projects	375,865	325,505	+15.5	16,563,885	14,431,789	+14.8
Projects operated by W. P. A.	2,856,508	3,044,685	−6.2	143,492,350	142,827,306	+.5
Relief work:						
Emergency conservation work	[10] 388,656	[11] 353,471	+10.0	[10] 18,021,978	[11] 17,213,224	+4.7

[1] Based on April reports received up to May 22, 1936. Includes employees of Columbia Institution for the Deaf and Howard University.
[3] Includes 42 employees by transfer previously reported as separations by transfer not actual additions for April.
[4] Revised.
[5] Includes 112,345 wage earners and $6,346,433 pay roll covering P. W. A. projects financed from E. R. A. A. 1935 funds.
[6] Includes 64,223 wage earners and $3,032,280 pay roll covering P. W. A. projects financed from E. R. A. A. 1935 funds.
[7] Includes 131 employees and pay roll of $8,531 on projects financed by R. F. C. Mortgage Company.
[8] Includes 62 employees and pay roll of $2,240 on projects financed by R. F. C. Mortgage Company.
[9] Data covering P. W. A. projects financed from E. R. A. A. 1935 funds are not included in The Works Program and shown only under P. W. A.
[10] 42,220 employees and pay roll of $5,900,025 included in executive service.
[11] 42,765 employees and pay roll of $6,015,979 included in executive service.

Detailed Reports for March 1936

THIS article presents the detailed figures on volume of employment, as compiled by the Bureau of Labor Statistics, for the month of March 1936. The tabular data are the same as those published in the Employment and Pay Rolls pamphlet for March, except for certain minor revisions and corrections.

Private Employment

MONTHLY reports on employment and pay rolls in private industry are now available for the following groups: (1) 90 manufacturing industries; (2) 16 nonmanufacturing industries, including building construction; and (3) class I steam railroads. The reports for the first two of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics, but in virtually all industries the samples are sufficiently large to be entirely representative. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and are presented in the foregoing summary.

Employment, Pay Rolls, Hours, and Earnings

THE indexes of employment and pay rolls, average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in March 1936 are shown in table 1. Percentage changes from February 1936 and March 1935 are also given. The collection of employment data concerning banks has been discontinued by the Bureau of Labor Statistics, but other Federal agencies will collect these statistics periodically and make them available to this Bureau for publication.

Table 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries

Average hourly earnings[1]	Average hours worked per week[1]	Average weekly

Table 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing [illegible]

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1936	Percentage change from—		Index March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—	
		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935
Manufacturing (indexes are based on 3-year average 1923–25=100)															
													Cents		
All manufacturing industries [2]	**84.1**	**+1.2**	**+1.9**	**76.3**	**+5.0**	**+7.8**	**$22.25**	**+3.7**	**+5.7**	**38.6**	**+3.2**	**+5.7**	**57.2**	**+0.1**	**+0.3**
Durable goods [2]	75.7	+1.7	+6.6	69.7	+7.7	+15.2	24.69	+5.9	+8.1	39.8	+5.2	+6.3	61.7	+.3	+2.2
Nondurable goods [2]	93.2	+.6	−1.9	84.9	+2.5	+1.2	19.86	+1.9	+3.2	37.5	+1.3	+3.3	52.9	−.2	−1.0
Durable goods															
Iron and steel and their products, not including machinery [2]	**77.1**	**+1.4**	**+7.4**	**69.9**	**+7.2**	**+17.9**	**24.89**	**+5.7**	**+9.8**	**39.9**	**+4.9**	**+10.7**	**61.7**	**+.7**	**+.5**
Blast furnaces, steel works, and rolling mills	77.4	+1.0	+4.6	73.8	+8.2	+16.5	26.38	+7.2	+11.6	39.8	+6.2	+12.3	66.2	+.9	−.2
Bolts, nuts, washers, and rivets	83.0	−.8	+6.1	73.0	+1.5	+10.4	22.85	+2.4	+3.9	40.0	+1.9	+1.5	57.0	+.3	+1.4
Cast-iron pipe	55.2	+1.8	+13.6	34.9	+2.1	+39.0	17.50	+.3	+22.4	35.6	+2.2	+21.5	48.8	−1.4	−.3
Cutlery (not including silver and plated cutlery), and edge tools	79.2	−1.2	−1.2	63.4	−2.7	+3.6	19.88	−1.6	+4.8	38.6	−.9	+6.2	51.5	−.8	−1.1
Forgings, iron and steel	66.6	+.6	+8.0	54.9	+4.3	+6.2	26.05	+3.7	−1.8	41.8	+2.9	−2.8	62.3	+.7	+1.5
Hardware [2]	55.1	−2.3	−2.5	50.5	+1.6	+5.4	21.27	+4.0	+8.2	39.1	+3.0	+9.5	54.7	+1.1	−1.7
Plumbers' supplies	94.7	+1.0	+30.8	63.9	+4.7	+42.5	22.50	+3.7	+9.0	39.2	+2.1	+5.1	57.4	+1.5	+3.3
Steam and hot-water heating apparatus and steam fittings	58.4	+1.4	+15.9	42.6	+3.4	+27.4	23.44	+2.0	+9.5	39.8	+1.8	+8.4	58.8	+.3	+.4
Stoves	100.1	+4.6	+9.0	84.4	+7.2	+23.8	23.85	+2.4	+13.5	41.3	+1.9	+9.9	58.3	+.4	+3.4
Structural and ornamental metalwork	60.9	+5.5	+10.7	49.9	+11.4	+29.0	22.72	+5.6	+16.8	39.0	+5.9	+15.2	58.1	−.3	+1.2
Tin cans and other tinware	93.9	+2.8	+8.8	94.5	+9.7	+13.5	21.82	+6.8	+4.3	39.1	+6.5	+3.3	56.1	−.1	+.8
Tools (not including edge tools, machine tools, files, and saws)	73.4	+1.7	+14.1	74.4	+2.4	+23.0	23.05	+.7	+7.8	43.3	+.5	+9.0	53.2	+.2	−.6
Wirework	142.2	+2.2	+14.2	140.0	+12.9	+21.6	22.88	+10.4	+6.3	40.9	+8.8	+5.9	56.1	+1.5	+.6
Machinery, not including transportation equipment	**93.6**	**+1.1**	**+11.3**	**82.2**	**+3.8**	**+22.9**	**24.80**	**+2.7**	**+10.4**	**40.3**	**+2.6**	**+8.2**	**60.9**	**+.1**	**+1.9**
Agricultural implements	138.7	+1.7	+36.9	171.0	+3.4	+50.4	25.34	+1.6	+10.1	41.2	+1.2	+4.2	61.8	+.3	+5.3
Cash registers, adding machines, and calculating machines	117.3	+1.5	+13.8	101.0	+.4	+20.8	28.30	−1.0	+6.1	41.0	+(3)	+5.1	69.7	−1.3	+1.5
Electrical machinery, apparatus, and supplies	72.3	+1.3	+4.5	63.7	+4.5	+11.3	24.34	+3.1	+6.2	39.0	+3.1	+7.3	62.0	+.2	+.4

See footnotes at end of table.

Table 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, March 1936—Continued

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1936	Percentage change from—		Index March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—	
		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935
Manufacturing (indexes are based on 3-year average 1923–25=100)—Continued															
													Cents		
Machinery—Continued.															
Engines, turbines, tractors, and water wheels	116.2	+3.2	+28.0	88.7	+5.2	+38.1	$27.79	+1.9	+7.9	40.3	+2.7	+1.9	69.0	−0.7	+5.5
Foundry and machine-shop products	81.5	+1.9	+10.9	71.6	+4.8	+24.5	24.75	+2.8	+12.2	41.5	+2.8	+10.3	59.6	+.4	+1.9
Machine tools	104.5	+.9	+31.3	97.4	+1.0	+46.4	27.77	+.1	+11.3	44.1	+.3	+10.5	62.9	−.1	+1.0
Radios and phonographs	186.1	−5.1	−1.5	109.7	−3.8	−.9	18.23	+1.4	+.9	33.4	+1.9	+1.3	54.7	−.3	−.3
Textile machinery and parts	71.0	+.6	+9.6	64.6	+2.0	+23.5	24.96	+1.4	+12.6	42.0	+2.3	+13.4	59.5	−.7	−.5
Typewriters and parts	104.7	+1.4	+9.2	91.1	+1.1	+14.3	22.21	−.3	+4.8	39.2	+1.2	+4.6	56.6	−1.5	+.1
Transportation equipment	**100.3**	**+1.2**	**−3.2**	**96.1**	**+12.7**	**−2.1**	**27.42**	**+11.3**	**+1.1**	**36.7**	**+11.0**	**−4.5**	**74.6**	**+.1**	**+6.0**
Aircraft	500.8	+8.7	+52.2	386.7	+7.9	+39.3	25.34	−.8	−8.5	40.3	−1.5	+.8	64.7	−.6	−4.1
Automobiles	111.1	−.9	−7.0	105.4	+12.6	−6.5	27.84	+13.6	+.6	36.6	+13.1	−6.3	76.2	+.6	+7.7
Cars, electric- and steam-railroad	56.8	+12.3	+8.9	62.0	+14.9	+13.7	22.89	+2.3	+4.5	37.1	+3.0	+4.2	61.7	−.7	+.2
Locomotives	27.6	+14.3	−15.1	12.9	+17.5	−11.8	24.36	+2.9	+4.1	38.0	+2.5	+5.1	64.0	+.3	−1.6
Shipbuilding	90.7	+10.6	+21.0	85.0	+12.8	+33.1	27.00	+2.1	+9.9	35.9	+2.8	+12.1	74.5	−1.7	−.8
Railroad repair shops	**60.1**	**+3.3**	**+12.1**	**63.1**	**+9.2**	**+27.2**	**29.64**	**+5.7**	**+13.5**	**43.5**	**+5.3**	**+7.3**	**68.3**	**+.1**	**+4.8**
Electric railroad	65.8	+.5	−.1	63.6	+1.8	+4.9	29.10	+1.4	+5.0	45.8	+1.5	+2.3	61.9	+.1	+1.3
Steam railroad	59.7	+3.7	+13.4	63.2	+9.7	+29.2	29.75	+5.8	+14.0	43.3	+5.7	+8.3	68.8	+.1	+5.1
Nonferrous metals and their products	**88.9**	**−.4**	**+7.1**	**73.9**	**+2.1**	**+13.7**	**22.17**	**+2.5**	**+6.1**	**40.0**	**+1.9**	**+5.8**	**55.0**	**+.6**	**+1.7**
Aluminum manufactures	85.2	+3.9	+7.8	79.9	+4.2	+14.8	22.74	+.3	+6.2	40.6	+.7	+3.3	55.9	−.5	+2.3
Brass, bronze, and copper products	86.9	−.4	+6.1	69.9	−.7	+9.2	23.21	−.3	+3.2	39.7	−.9	+2.0	58.3	+.6	+.8
Clocks and watches and time-recording devices	92.8	+.6	+17.7	81.3	+1.2	+23.7	19.80	+.6	+5.0	40.3	−.9	+1.9	49.1	+1.5	+3.0
Jewelry	69.9	−2.3	−.8	52.8	+.7	−1.9	19.96	+3.2	−1.0	35.7	−.5	+.3	54.5	+2.5	+1.6
Lighting equipment	79.1	−3.7	+13.4	72.5	−1.4	+27.3	21.69	+2.4	+12.2	38.9	+.9	+11.9	55.7	+1.4	+.2
Silverware and plated ware	66.6	+.2	−3.6	52.2	+7.0	−.7	22.25	+6.8	+2.9	39.4	+8.3	+5.4	56.2	−1.3	−1.7
Smelting and refining—copper, lead, and zinc	89.5	−.8	+18.2	65.6	+3.4	+35.8	23.51	+4.1	+15.3	42.0	+4.7	+11.3	56.0	−.5	+3.7
Stamped and enameled ware	109.1	−.1	+.6	96.4	+6.2	+7.4	21.01	+6.3	+6.8	41.0	+5.8	+5.7	51.4	+.9	+1.1
Lumber and allied products	**54.5**	**+2.6**	**+7.7**	**44.6**	**+8.5**	**+22.9**	**18.61**	**+5.7**	**+14.1**	**40.9**	**+5.2**	**+12.9**	**45.3**	**+.6**	**+1.1**
Furniture	72.4	−.2	+4.8	55.7	+2.5	+12.0	18.45	+2.7	+6.5	40.6	+2.1	+7.9	45.5	+.4	−.1
Lumber:															
Millwork	47.0	+2.8	+22.8	39.2	+9.1	+52.1	19.25	+6.1	+23.8	41.8	+6.8	+21.3	46.2	−.7	+2.7
Sawmills	36.1	+5.5	+7.7	28.0	+14.7	+25.2	18.70	+8.8	+16.6	41.2	+7.6	+16.0	46.0	+.9	+2.0
Turpentine and rosin	97.1	−1.0	−2.7	59.2	+7.4	+13.1	18.06	+8.4	+16.1						
Stone, clay, and glass products	54.1	+8.1	+5.9	32.4	+16.0	+37.9	18.02	+7.2	+17.0	40.0	+14.3	+21.4	45.1	−.2	+.2
	32.5	+8.2	+17.7	22.4	+33.7	+27.0	20.75	+14.5	+18.8	36.4	+4.4	+19.2	57.0	+1.0	+3.8
Glass	44.3	+16.7	+6.7	31.8	+6.3	+9.5	21.90	+5.0	+8.3	36.5	+12.6	+3.6	60.2	+1.0	−5.8
Pottery, tile, and terra cotta				89.1			22.87	+14.5	+10.4	36.6		+18.1	63.1		+3.1
											+4.4	+12.5	54.8	−.1	

Millwork	47.0	+2.8	+22.8	39.2	+9.1	+52.1	19.25	+6.1	+23.8	41.8	+6.8	+21.3	46.2	−.7	+2.7
Sawmills	36.1	+5.5	+7.7	28.0	+14.7	+25.2	18.70	+8.8	+16.6	41.2	+7.6	+16.0	46.0	+.9	+2.0
Turpentine and rosin	97.1	−1.0	−2.7	59.2	+7.4	+18.1	15.65	+5.4	+16.1						
Stone, clay, and glass products	54.1	+6.1	+2.3	43.5	+18.4	+37.9	18.02	+7.2	+17.0	40.0	+7.4	+21.4	45.1	−.7	+3.3
Brick, tile, and terra cotta	32.5	+8.2	+17.7	22.4	+16.0	+37.9	18.02	+7.2	+17.0	40.0	+7.4	+21.4	45.1	−.7	+3.3
Cement	44.3	+16.7	+6.7	31.8	+33.7	+27.0	20.75	+14.5	+18.8	36.4	+14.8	+19.2	57.0	−.2	+.2
Glass	94.9	+1.2	+1.2	89.1	+6.3	+9.5	21.90	+5.0	+8.3	36.5	+4.4	+3.6	60.2	+1.0	+3.8
Marble, granite, slate, and other products	26.4	+21.6	+13.0	19.0	+39.1	+24.9	22.87	+14.5	+10.4	36.6	+12.6	+18.1	63.1	+1.0	−5.8
Pottery	71.2	+5.1	−2.3	57.6	+8.5	+10.0	21.81	+3.2	+12.3	40.2	+4.4	+12.5	54.8	−.1	+3.1
Nondurable goods															
Textiles and their products [1]	97.2	+1.1	−2.0	84.3	+3.9	−2.9	16.68	+2.7	−.9	36.0	+1.4	+4.3	46.3	+.5	−4.1
Fabrics [2]	93.3	−.2	−3.2	80.0	+.1	−4.0	15.87	+.2	−.8	36.3	−.1	+2.3	43.9	+.3	−2.1
Carpets and rugs	80.9	+5.3	+7.4	70.4	+.9	+3.0	19.25	−4.2	−4.2	34.1	−5.1	−4.5	56.5	+1.0	+2.7
Cotton goods [2]	91.6	+.1	−4.1	77.8	−1.1	−3.4	13.40	−1.2	+.9	36.5	−1.1	+4.2	36.7	0	−2.9
Cotton small wares	84.8	+.8	−6.4	75.0	+2.4	−5.8	16.94	+1.6	+.7	38.2	+1.8	+.4	44.5	−.4	−.3
Dyeing and finishing textiles	111.9	+1.6	−4.3	95.7	+4.4	−4.6	20.09	+2.8	−.6	38.0	+2.3	+.4	52.9	+.8	+.1
Hats, fur-felt	84.1	+.2	−(3)	85.0	−1.9	+2.3	24.22	−2.1	+2.3	35.8	−7.4	+9.3	67.8	+5.4	−2.0
Knit goods	114.9	+1.6	+.3	112.5	+5.1	−1.8	16.86	+3.4	−2.1	36.7	+3.2	+1.6	47.0	0	−2.5
Silk and rayon goods	64.7	−.7	−15.4	53.5	+4.2	−18.3	15.15	+4.9	−3.4	35.3	+4.5	+3.8	43.0	+.3	−6.1
Woolen and worsted goods	93.0	−4.5	+.7	71.5	−7.3	−1.3	17.64	−3.0	−2.0	35.5	−3.7	−1.6	49.8	+.7	−.2
Wearing apparel	101.9	+4.1	+.5	87.6	+11.5	−1.0	19.01	+7.1	−1.5	35.3	+4.9	+8.3	51.4	+.5	−9.8
Clothing, men's	96.1	+1.2	+1.6	80.7	+5.1	−1.6	19.99	+3.8	−3.3	34.1	+2.9	+2.3	56.9	+.4	−7.3
Clothing, women's	133.8	+6.1	+.1	108.7	+15.0	−2.3	20.10	+8.4	−2.3	35.3	+5.0	+9.8	53.0	+1.0	−11.8
Corsets and allied garments	86.0	+1.7	−8.2	88.6	+3.6	−3.0	16.40	+1.9	+5.7	36.8	+2.6	+8.7	44.3	+.2	+.3
Men's furnishings	109.2	+4.1	−2.2	75.0	+6.5	−6.7	14.20	+2.2	−4.7	36.6	+1.7	+11.9	35.4	+.7	−16.8
Millinery	70.8	+20.6	+.8	76.2	+47.2	+8.0	25.43	+22.1	+7.0						
Shirts and collars	105.5	+2.4	+1.1	104.7	+8.1	+3.4	13.09	+5.5	+2.1	35.7	+6.7	+17.2	37.2	−1.1	−13.3
Leather and its manufactures	89.0	−.8	−4.0	75.5	−5.5	−10.2	18.36	−4.8	−6.5	35.5	−5.7	−5.6	51.5	+.4	−1.0
Boots and shoes	87.4	−.8	−5.1	69.7	−6.6	−13.7	17.59	−5.9	−9.1	34.8	−6.6	−6.3	50.3	+.4	−2.2
Leather	95.6	−.7	+.1	93.8	−2.9	−.4	21.05	−2.2	−.6	37.7	−2.7	−2.2	55.8	+.4	+1.4
Food and kindred products	92.0	+1.0	−1.3	87.5	+3.3	+5.0	22.19	+2.3	+6.4	40.8	+2.2	+4.8	54.4	+.4	+1.1
Baking	112.9	+1.1	+1.8	100.9	+1.1	+7.7	22.66	0	+5.7	41.8	+.1	+4.7	54.1	0	+1.1
Beverages	158.6	+7.1	+4.8	162.4	+13.3	+10.6	30.73	+5.8	+5.4	39.6	+5.1	+3.6	78.3	+.6	+2.0
Butter	68.0	+1.4	+.3	55.7	+4.9	+6.3	21.27	+3.4	+6.1						
Canning and preserving	56.6	−.1	−4.3	70.8	+7.2	+10.2	15.14	+7.2	+15.1	36.0	+7.5	+10.3	41.9	+.2	+3.4
Confectionery	73.9	+1.0	−10.1	66.6	+3.6	−8.7	16.37	+2.6	+1.8	38.6	+2.4	+4.8	42.7	+.1	−2.6
Flour	73.7	−.3	−1.7	67.7	−.8	+6.7	23.34	−.5	+8.7	43.0	−.6	+12.5	53.7	−.3	−2.9
Ice cream	61.8	+6.6	−3.7	53.2	+9.4	+1.5	26.93	+2.7	+5.3	46.8	+3.1	+5.7	56.5	−.2	−1.3
Slaughtering and meat packing	80.5	−1.5	−2.9	74.1	+.3	+.8	22.95	+1.9	+3.7	40.5	+2.1	+4.1	55.8	+.1	−.2
Sugar, beet	31.5	+10.8	−10.4	35.9	+13.3	−1.3	27.29	+2.3	+10.0	40.7	+6.6	+4.8	68.6	−2.4	+3.1
Sugar refining, cane	79.6	+1.2	−1.7	75.8	+12.9	+8.9	24.40	+11.5	+10.9	40.6	+9.7	+5.0	59.4	+1.2	+5.7
Tobacco manufactures	55.9	+.7	−3.3	44.9	+3.5	+1.4	14.34	+2.7	+4.8	34.6	+2.8	+4.1	41.4	−.1	−.4
Chewing and smoking tobacco and snuff	66.0	−1.6	−6.6	66.2	+1.7	−2.2	15.42	+3.4	+4.6	35.8	+3.0	+6.2	43.2	+.6	−1.0
Cigars and cigarettes	54.6	+1.1	−2.6	42.2	+3.7	+2.4	14.10	+2.5	+5.0	34.4	+2.7	+3.6	41.1	−.3	+.3
Paper and printing	98.2	0	+1.3	90.5	+1.8	+7.1	26.02	+1.9	+5.7	39.2	+1.2	+3.9	69.2	+.5	+1.3
Boxes, paper	84.7	+.4	−1.9	79.7	+2.8	+.1	19.08	+2.4	+1.8	39.4	+1.7	+3.6	48.9	+.9	−.8
Paper and pulp	109.6	+.4	−.1	94.9	+1.6	+7.3	21.97	+1.2	+7.0	41.4	+1.2	+7.2	53.1	+(3)	+.7
Printing and publishing:															
Book and job	89.0	−1.7	+1.8	81.9	+.4	+6.3	28.68	+2.1	+4.0	38.5	+.6	+3.5	75.0	+1.3	+.6
Newspapers and periodicals	102.6	+.8	+3.8	97.4	+2.9	+9.2	34.44	+2.1	+4.8	37.2	+1.5	+.8	89.5	+.2	+1.4

See footnotes at end of table.

Table 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, March 1936—Continued

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1936	Percentage change from—		Index March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—		March 1936	Percentage change from—	
		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935		February 1936	March 1935
Manufacturing (indexes are based on 3-year average 1923–25=100)—Continued															
													Cents		
Chemicals and allied products, and petroleum refining	**112.1**	**+2.9**	**−0.5**	**102.4**	**+5.0**	**+6.6**	**$23.75**	**+2.0**	**+7.0**	**39.3**	**+3.6**	**+5.0**	**60.7**	**−2.1**	**+3.7**
Other than petroleum refining	113.2	+3.8	−.6	102.2	+5.1	+6.5	21.53	+1.3	+7.1	40.3	+3.3	+4.5	53.6	−2.5	+3.6
Chemicals	108.1	+1.0	+4.6	103.0	+3.1	+9.9	26.03	+2.1	+5.0	40.7	+2.5	+2.7	63.8	−.4	+2.2
Cottonseed—oil, cake, and meal	68.0	+1.1	−9.2	69.2	+1.2	−7.8	9.84	+.1	+1.5	45.1	+1.0	+3.9	21.8	−.9	−3.2
Druggists' preparations	99.0	+1.4	+.1	100.0	+6.1	+4.3	21.75	+4.7	+4.0	40.2	+5.8	+2.5	55.1	+.2	+1.1
Explosives	89.4	+.9	+1.3	86.0	+6.5	+17.9	26.93	+5.4	+16.6	40.8	+6.3	+12.4	66.0	−.8	+2.3
Fertilizers	141.4	+50.2	−15.6	123.6	+61.0	−5.2	12.97	+7.1	+12.2	40.4	+16.3	+14.2	32.2	−8.1	−2.5
Paints and varnishes	108.1	+.8	+3.7	95.9	+2.6	+11.3	24.31	+1.8	+7.4	41.2	+2.1	+5.1	59.0	−.3	+2.7
Rayon and allied products	352.0	+1.4	+.9	267.3	+2.5	+5.9	20.22	+1.1	+5.1	38.8	+1.6	+2.6	52.1	−.5	+2.3
Soap	96.4	0	−6.7	95.0	+.5	−1.0	23.84	+.5	+6.3	39.3	+.4	+1.3	60.8	+.1	+4.6
Petroleum refining	107.5	−.4	−.3	103.0	+4.6	+6.8	29.46	+5.0	+7.2	36.2	+3.9	+4.6	82.0	+.1	+3.7
Rubber products [2]	**72.7**	**−11.0**	**−14.0**	**63.0**	**−9.2**	**−10.8**	**23.97**	**+1.5**	**+3.7**	**37.6**	**+5.6**	**+8.4**	**64.4**	**−5.2**	**−6.2**
Rubber boots and shoes	58.9	+2.0	+1.3	52.3	+5.7	+5.0	19.66	+3.2	+3.6	38.0	+3.2	+4.1	51.8	−(3)	−.4
Rubber goods, other than boots, shoes, tires, and inner tubes	127.6	+.7	+1.2	114.0	+3.0	+6.5	20.53	+2.3	+5.3	39.3	+2.0	+5.7	52.9	+.3	+.7
Rubber tires and inner tubes [2]	53.2	−24.0	−29.3	47.4	−21.3	−24.5	28.59	+3.5	+6.5	35.5	+8.1	+11.2	81.3	−3.9	−3.8

Nonmanufacturing (indexes are based on 12-month average 1929=100)

													Cents		

Nonmanufacturing (indexes are based on 12-month average 1929 = 100)

Coal mining:												*Cents*		
Anthracite	52.5	−14.2	+2.1	42.6	−44.5	+9.4	$23.58	−35.3	+7.1	27.8	−37.7	+1.0	83.2	+1.0	+2.3
Bituminous	80.4	+.3	−1.5	70.2	−10.5	+4.0	22.19	−10.7	+5.6	28.2	−13.4	−3.2	79.3	+2.6	+9.4
Metalliferous mining	55.9	+.7	+24.3	45.1	+5.6	+46.1	24.84	+4.8	+17.6	42.6	+5.0	+16.8	57.9	+(3)	+2.4
Quarrying and nonmetallic mining	42.2	+14.3	+4.2	30.9	+29.1	+24.1	17.93	+12.8	+19.0	39.2	+12.9	+18.0	45.8	−1.0	−3.9
Crude petroleum producing	70.7	−.1	−4.5	55.9	+.3	−.3	29.15	+.4	+4.4	37.7	+.9	+3.1	77.5	−.3	−2.0
Public utilities:															
Telephone and telegraph	70.2	+.4	+.6	77.2	+1.3	+2.5	29.53	+.9	+1.9	38.6	−2.2	−1.1	79.1	+3.1	+3.5
Electric light and power and manufactured gas	86.9	+.9	+5.5	86.1	+1.6	+8.3	31.89	+.7	+2.7	40.3	+1.5	+1.3	78.8	−.6	+1.8
Electric-railroad and motorbus operation and maintenance	71.2	−.7	−.1	67.8	−.7	+6.9	30.79	−.1	+7.2	47.2	−.6	+4.8	64.0	+.5	+2.7
Trade:															
Wholesale	85.6	+.7	+1.9	69.0	+3.6	+5.7	28.59	+2.9	+3.8	42.7	+1.9	+3.1	66.9	+.6	+(3)
Retail	81.9	+2.7	+2.1	63.5	+3.1	+5.1	20.80	+.4	+3.1	43.4	+(3)	+4.1	52.0	+(3)	−1.2
General merchandising	90.9	+6.9	+2.6	77.3	+4.6	+4.3	17.52	−2.1	+1.6	40.5	−.6	+7.4	46.0	−1.0	−5.0
Other than general merchandising	79.5	+1.6	+2.0	60.7	+2.7	+5.4	23.44	+1.1	+3.3	44.3	+.3	+3.3	53.8	+.4	−.4
Hotels (year-round) [4]	82.8	−(3)	+2.5	66.0	−.7	+3.3	14.04	−.6	+.8	48.6	−.6	+1.3	28.5	−.2	−.6
Laundries	82.1	+1.1	+3.0	69.9	+3.1	+8.2	15.97	+2.0	+5.1	42.2	+1.5	+4.9	37.4	+.5	+.4
Dyeing and cleaning	74.7	+6.2	+3.0	56.4	+15.2	+5.4	18.47	+8.5	+2.3	42.8	+7.0	−1.2	43.9	+1.9	+.6
Brokerage	(5)	+3.3	+27.6	(5)	+2.9	+35.6	36.90	−.4	+6.1	(5)	(5)	(5)	(5)	(5)	(5)
Insurance	(5)	−(3)	+.8	(5)	−1.9	+1.1	37.66	−1.9	+.1	(5)	(5)	(5)	(5)	(5)	(5)
Building construction	(5)	+28.3	+14.8	(5)	+35.8	+24.1	24.71	+5.8	+8.6	30.9	+6.0	+14.2	79.8	−.3	−3.2

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments as all reporting firms do not furnish man-hours. Percentage changes over year are computed from indexes. Percentage changes over month in average weekly earnings for the manufacturing groups, for all manufacturing industries combined, and for retail trade are also computed from indexes.

[2] The inclusion of late reports has necessitated revisions in a number of the previously published figures. The revised figures are shown in table 2.

[3] Less than 1/10 of 1 percent.

[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

[5] Not available.

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Table 2.—Revised Figures for the Months of November and December 1935 and January and February 1936

Industry	Employment			Pay rolls			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index November 1935	Percentage change from—		Index November 1935	Percentage change from—		November 1935	Percentage change from—		November 1935	Percentage change from—		November 1935	Percentage change from—	
		October 1935	November 1934		October 1935	November 1934		October 1935	November 1934		October 1935	November 1934		October 1935	November 1934
													Cents		
All manufacturing industries	**85.0**		**+10.5**				**$21.80**	**−0.3**	**+13.2**						
Nondurable goods	94.6	−1.9	+2.3	82.7	−4.1	+8.0	19.16			36.3	−2.2	+5.3			
Rubber products				71.8	+1.4	+23.6	24.28	+1.5	+16.4	36.1	+.3	+13.1	67.9	0	+2.2
Rubber tires and inner tubes				62.3	+5.7	+23.6	28.61	+7.9	+21.8	33.8	+6.3	+15.2	85.2	+.7	+6.4
	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934
													Cents		
All manufacturing industries				**76.4**	**+2.6**	**+20.9**	**$22.33**	**+3.1**	**+11.6**	**38.7**	**+2.4**	**+10.3**	**57.2**	**0**	**0**
Durable goods				69.7	+2.3	+38.3	24.84	+2.9	+17.6	39.9	+2.0	+13.6	61.5		
Nondurable goods				85.0	+2.8	+6.9	19.86	+3.2	+5.3			+5.4	53.2		
Transportation equipment	103.3	+2.3	+31.8	102.2	+.7	+51.2	28.34	−1.6	+14.7	38.1	−2.1	+9.8	74.3	0	0
Automobiles	118.1	+2.2	+32.8	115.9	−.7	+51.7	28.78	−2.9	+14.0	38.4	−3.0	+9.2	75.1	+.3	+4.7
Rubber products	82.9	+.2	+3.4	76.2	+6.1	+15.5	25.75	+5.9	+11.7	37.8	+5.0	+8.3	68.4		+2.8
Rubber tires and inner tubes	70.2	+.5	−2.4	66.5	+6.6	+10.8	30.34	+6.0	+13.3	35.8	+5.9	+7.5	85.5		+6.4
	January 1936	December 1935	January 1935	January 1936	December 1935	January 1935	January 1936	December 1935	January 1935	January 1936	December 1935	January 1935	January 1936	December 1935	January 1935
													Cents		
All manufacturing industries	**82.9**	**−2.0**	**+5.2**	**72.7**	**−4.8**	**+13.1**	**$21.59**	**−2.9**	**+7.5**	**37.3**	**−3.5**	**+6.4**	**57.3**	**0**	**0**
Durable goods	74.4	−1.7	+12.4	65.1	−6.6	+24.0	23.60	−5.0	+10.3	37.8	−5.1	+7.8	61.6		
Nondurable goods				82.4	−3.1	+3.9	19.59	−.8	+4.3			+3.7	53.2		
Transportation equipment	101.8	−1.5	+10.2	94.8	−7.2	+19.4	26.60	−5.9	+8.4	35.7	−6.2	+2.4	74.4	+.4	+5.6
Automobiles	116.3	−1.5	+7.6	106.8	−7.8	+15.8	26.88	−6.4	+7.7	35.6	−7.1	+1.4	75.5	+.7	+6.5
Rubber products				72.5	−4.9	+4.5	24.77	−3.8	+5.9	36.3	−4.1	+2.1	68.7	+.4	+2.7
Rubber tires and inner tubes		+.4		63.6	−.4	+2.3	28.94	−4.7	+8.1	34.1	−5.0	+2.7	85.8		+5.8

Industry	Employment			Pay rolls			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index February 1935	Percentage change from—		Index February 1935	Percentage change from—		February 1935	Percentage change from—		February 1935	Percentage change from—		February 1935	Percentage change from—	
		January 1935	February 1934		January 1935	February 1934		January 1935	February 1934		January 1935	February 1934		January 1935	February 1934
													Cents		
All manufacturing industries	**84.1**	**−1.2**	**+9.1**	**74.2**	**−8.5**	**+15.2**	**$21.61**	**−7.3**	**+5.9**	**37.4**	**−7.0**	**+4.6**	**57.8**	**−.3**	**+1.3**
Durable goods	73.4	−1.3	+11.1	65.4	−10.0	+25.1	23.61	−9.1	+9.1	37.9	−8.4	+8.1	62.3	−.8	+1.0
Nondurable goods	96.2	−1.1	+6.8	85.0	−6.8	+5.8	19.74	−5.6	+2.2	36.5	−5.6	+1.1	54.1		+1.1
Transportation equipment	101.3	−.5	+8.3	94.3	−7.6	+17.1	26.61	−5.8	+8.4	35.8	−6.0	+2.5	74.3	+.2	+5.8
Automobiles	114.8	−1.3	+6.4	104.8	−9.6	+13.8	26.84	−6.3	+7.3	35.7	−7.0	+1.3	75.2	+.7	+6.0
Rubber products	84.2	+1.6	+5.3	74.2	+2.3	+9.1	25.00	+.9	+3.8	36.6	+.8	+3.0	68.3	+.1	+.7
Rubber tires and inner tubes	72.2	+2.8	−1.4	65.2	+2.5	+6.1	29.19	+.8	+5.1	34.4	+1.2	+3.0	84.9	−.4	+2.1

	February 1936	January 1936	February 1935	February 1936	January 1936	February 1935	February 1936	January 1936	February 1935	February 1936	January 1936	February 1935	February 1936	January 1936	February 1935
													Cents		
All manufacturing industries	**83.1**		**+2.1**	**72.7**	**0**	**+5.2**	**$21.44**	**−0.2**	**+3.1**			**+2.7**		**−0.3**	**+0.5**
Durable goods	74.4	0	+7.2	64.7	−.6	+10.4	23.22	−.6	+3.1	37.8		+1.8			
Nondurable goods	92.6	+.5	−1.7		+.5		19.60	−.1	+1.9		+0.4	+2.3	53.0		
Iron and steel and their products, not including machinery							23.48			38.0	+1.5	+5.0	61.3		
Hardware	56.3	−1.9	+.2	49.7	−5.6	+(1)	20.47	−3.8	+.1	38.0	−3.2	+2.8	54.1	−.8	
Transportation equipment	99.1	−2.7	−1.8	85.3	−10.0	−9.9		−7.5	−8.3		−7.6	−14.0			+6.6
Automobiles	112.0		−4.6	93.6		−15.2			−11.1			−17.4			+7.8
Lumber and allied products	53.1	+.4	+7.5	41.1	0	+18.1	17.49	−.4	+9.9	38.8	−.2		44.9	0	
Sawmills	34.3	−.5	+4.6	24.4	−3.2	+13.9	17.22	−2.7		38.4	−2.6	+8.1	45.4	0	+2.7
Leather and its manufactures				79.9	+1.0	−3.2	19.25	−.4	−1.1						
Boots and shoes				74.6	+2.6	−5.8	18.58	+.3	−3.0						
Textiles and their products							16.41								
Fabrics							15.90								
Cotton goods	91.5	−.3	−5.4	78.6	+.2	−5.0	13.55	+.5	+.6						
Rubber products	81.7	−.4	−3.0	69.8	−3.7	−2.9	23.81	−3.4	0		−1.7	+.3	68.2	−1.1	
Rubber tires and inner tubes	69.9	−.8	−7.2	60.2	−5.3	−8.3	27.66	−4.5	−1.5	32.8	−3.7	−1.4	85.2	−1.3	

[1] Less than 1/10 of 1 percent.

Indexes of Employment and Pay Rolls, January 1935 to March 1936

Indexes of employment and pay rolls for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries separately, and for 13 nonmanufacturing industries including two subgroups under retail trade by months, January 1935 to March 1936, inclusive, are given in table 3. The accompanying diagram indicates the trend of factory employment and pay rolls from January 1919 to March 1936.

The indexes of factory employment and pay rolls are computed from returns supplied by representative establishments in 90 manufacturing industries. The base used in computing these indexes is the 3-year average 1923–25 taken as 100. In March 1936, reports were received from 24,137 establishments employing 4,038,472 workers whose weekly earnings were $89,998,210. The employment reports received from these establishments cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries included in the Bureau of Labor Statistics' monthly survey.

The indexes for nonmanufacturing industries are also computed from data supplied by reporting establishments, but the base is the 12-month average for 1929 as 100.

Table 3.—Indexes of Employment and Pay Rolls in all Manufacturing Industries Combined, in the Durable- and Nondurable-Goods Groups Under Manufacturing, and in Selected Nonmanufacturing Industries, January 1935 to March 1936 [1]

[3-year average 1923–25=100 for manufacturing; 12-month average 1929=100 for nonmanufacturing industries]

Month	Manufacturing											
	Total				Durable goods				Nondurable goods			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936
January	78.8	83.0	64.3	72.2	66.2	74.5	52.5	64.3	92.4	92.1	79.3	82.3
February	81.4	83.2	69.1	72.2	69.4	74.6	58.6	64.1	94.2	92.5	82.6	82.8
March	82.5	84.2	70.8	75.8	71.0	75.9	60.5	68.9	95.0	93.2	83.9	84.7
April	82.6	-----	70.8	-----	71.8	-----	61.8	-----	94.2	-----	82.4	-----
May	81.2	-----	68.5	-----	71.4	-----	60.1	-----	91.8	-----	79.2	-----
June	79.7	-----	66.4	-----	69.7	-----	57.6	-----	90.6	-----	77.6	-----
July	79.7	-----	65.4	-----	69.4	-----	55.6	-----	90.8	-----	77.9	-----
August	82.0	-----	69.7	-----	70.5	-----	58.9	-----	94.3	-----	83.4	-----
September	83.7	-----	72.2	-----	71.2	-----	60.6	-----	97.1	-----	87.1	-----
October	85.3	-----	75.0	-----	74.9	-----	66.3	-----	96.4	-----	86.2	-----
November	85.0	-----	74.5	-----	76.1	-----	68.1	-----	94.6	-----	82.7	-----
December	84.6	-----	76.6	-----	75.7	-----	70.1	-----	94.2	-----	85.1	-----
Average	82.2	-----	70.3	-----	71.4	-----	60.9	-----	93.8	-----	82.3	-----

[1] Comparable indexes for earlier years for all of these industries, except year-round hotels, will be found in the February 1935 and subsequent issues of the Monthly Labor Review. Comparable indexes for year-round hotels will be found in the September 1935 issue of the Monthly Labor Review.

Table 3.—Indexes of Employment and Pay Rolls in all Manufacturing Industries Combined, in the Durable- and Nondurable-Goods Groups Under Manufacturing, and in Selected Nonmanufacturing Industries, January 1935 to March 1936—Continued

Month	Anthracite mining				Bituminous-coal mining				Metalliferous mining				Quarrying and nonmetallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936
January	62.9	59.1	57.5	54.4	80.0	79.8	59.6	70.6	44.3	54.2	30.1	41.7	36.9	39.4	20.8	25.5
February	64.4	61.2	64.3	76.7	81.1	80.2	66.1	78.4	44.3	55.5	29.9	42.8	37.3	36.9	22.2	23.9
March	51.4	52.5	38.9	42.6	81.6	80.4	67.5	70.2	45.0	55.9	30.9	45.1	40.5	42.2	24.9	30.9
April	52.6	-----	49.9	-----	74.3	-----	45.0	-----	46.0	-----	31.8	-----	45.3	-----	28.9	-----
May	53.5	-----	49.5	-----	75.3	-----	49.1	-----	44.4	-----	31.4	-----	49.5	-----	32.8	-----
June	56.8	-----	66.0	-----	77.9	-----	64.7	-----	46.0	-----	31.5	-----	50.4	-----	33.8	-----
July	49.4	-----	37.5	-----	70.0	-----	35.9	-----	45.2	-----	31.1	-----	50.9	-----	34.4	-----
August	38.7	-----	28.3	-----	73.4	-----	45.8	-----	46.3	-----	33.4	-----	51.0	-----	36.3	-----
September	46.0	-----	38.2	-----	77.1	-----	60.1	-----	48.9	-----	35.4	-----	50.0	-----	35.4	-----
October	58.8	-----	55.9	-----	74.3	-----	69.8	-----	51.6	-----	38.7	-----	50.0	-----	36.5	-----
November	46.6	-----	28.4	-----	76.1	-----	65.5	-----	52.6	-----	39.6	-----	46.7	-----	32.1	-----
December	57.3	-----	55.4	-----	79.1	-----	69.5	-----	53.5	-----	43.2	-----	43.1	-----	29.7	-----
Average	53.2	-----	47.5	-----	76.7	-----	58.2	-----	47.3	-----	33.9	-----	46.0	-----	30.6	-----

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power, and manufactured gas				Electric-railroad and motorbus operation and maintenance [1]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936
January	74.9	71.1	55.5	55.7	70.5	70.1	73.9	75.0	82.7	86.1	78.0	84.8	71.2	70.7	62.9	65.0
February	74.2	70.8	54.9	55.7	70.0	69.9	72.9	76.2	82.2	86.1	78.3	84.7	71.0	71.7	63.1	68.3
March	74.0	70.7	56.0	55.9	69.8	70.2	75.3	77.2	82.3	86.9	79.4	86.1	71.3	71.2	63.4	67.8
April	74.9	-----	56.7	-----	69.7	-----	73.1	-----	82.6	-----	79.0	-----	71.4	-----	63.3	-----
May	76.0	-----	57.8	-----	70.0	-----	73.7	-----	83.3	-----	79.8	-----	71.6	-----	63.6	-----
June	76.7	-----	59.2	-----	70.2	-----	74.4	-----	83.9	-----	79.8	-----	71.7	-----	63.9	-----
July	77.4	-----	59.9	-----	70.3	-----	75.7	-----	84.8	-----	81.5	-----	71.5	-----	63.4	-----
August	76.3	-----	58.9	-----	70.5	-----	75.4	-----	86.8	-----	82.8	-----	71.2	-----	63.3	-----
September	75.1	-----	60.9	-----	70.4	-----	73.8	-----	86.9	-----	84.5	-----	71.0	-----	64.0	-----
October	74.7	-----	57.9	-----	70.0	-----	74.9	-----	87.4	-----	84.4	-----	71.1	-----	64.1	-----
November	73.0	-----	57.2	-----	69.8	-----	74.9	-----	87.6	-----	83.4	-----	71.1	-----	63.8	-----
December	71.9	-----	59.9	-----	69.6	-----	75.6	-----	86.8	-----	86.0	-----	70.5	-----	66.1	-----
Average	74.9	-----	57.9	-----	70.1	-----	74.5	-----	84.8	-----	81.4	-----	71.2	-----	63.7	-----

[1] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 3.

Table 3.—Indexes of Employment and Pay Rolls in all Manufacturing Industries Combined, in the Durable- and Nondurable-Goods Groups Under Manufacturing, and in Selected Nonmanufacturing Industries, January 1935 to March 1936—Continued

Month	Wholesale trade				Total retail trade				Retail trade—general merchandising				Retail trade—other than general merchandising			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936
January	84.2	85.6	63.9	66.6	79.5	80.4	59.7	62.1	87.3	88.2	73.5	76.4	77.4	78.4	56.9	59.1
February	84.6	85.0	64.6	66.6	79.2	79.7	59.3	61.6	86.2	85.1	72.3	73.9	77.3	78.3	56.6	59.1
March	84.0	85.6	65.2	69.0	80.2	81.9	60.4	63.5	88.6	90.9	74.1	77.3	78.0	79.5	57.6	60.7
April	83.2	-----	64.8	-----	83.5	-----	62.5	-----	94.4	-----	77.5	-----	80.7	-----	59.4	-----
May	82.5	-----	64.6	-----	82.2	-----	62.0	-----	91.3	-----	76.3	-----	79.8	-----	59.0	-----
June	82.1	-----	64.6	-----	82.2	-----	62.5	-----	91.2	-----	76.7	-----	79.8	-----	59.5	-----
July	82.1	-----	64.6	-----	79.3	-----	60.5	-----	85.5	-----	72.0	-----	77.7	-----	58.1	-----
August	82.7	-----	64.8	-----	78.0	-----	59.3	-----	83.1	-----	69.5	-----	76.7	-----	57.2	-----
September	83.7	-----	67.2	-----	81.8	-----	62.5	-----	92.2	-----	77.2	-----	79.1	-----	59.4	-----
October	85.7	-----	66.8	-----	83.8	-----	63.2	-----	97.1	-----	79.8	-----	80.3	-----	59.8	-----
November	86.4	-----	66.9	-----	84.6	-----	63.4	-----	101.6	-----	82.0	-----	80.1	-----	59.6	-----
December	86.8	-----	68.6	-----	92.9	-----	69.3	-----	131.7	-----	104.5	-----	82.7	-----	62.0	-----
Average	84.0	-----	65.5	-----	82.3	-----	62.1	-----	94.2	-----	78.0	-----	79.1	-----	58.8	-----

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936	1935	1936
January	80.3	81.9	62.2	64.9	79.6	81.5	63.9	68.3	70.3	71.5	50.4	51.6
February	81.1	82.8	63.5	66.5	79.6	81.2	64.1	67.8	69.6	70.3	49.8	49.0
March	80.8	82.8	63.9	66.0	79.7	82.1	64.6	69.9	72.5	74.7	53.5	56.4
April	81.1	-----	63.6	-----	80.0	-----	65.5	-----	79.9	-----	61.9	-----
May	81.6	-----	63.7	-----	81.1	-----	66.6	-----	80.9	-----	61.7	-----
June	81.3	-----	63.5	-----	82.3	-----	68.2	-----	83.6	-----	65.7	-----
July	80.3	-----	62.1	-----	84.4	-----	70.9	-----	81.7	-----	61.5	-----
August	80.7	-----	62.0	-----	84.2	-----	69.2	-----	79.4	-----	58.2	-----
September	81.1	-----	63.1	-----	83.0	-----	67.9	-----	82.1	-----	63.1	-----
October	81.6	-----	64.3	-----	81.9	-----	67.1	-----	80.4	-----	61.1	-----
November	81.5	-----	64.8	-----	81.3	-----	66.7	-----	76.3	-----	55.4	-----
December	80.8	-----	64.2	-----	81.1	-----	67.5	-----	73.4	-----	52.9	-----
Average	81.0	-----	63.4	-----	81.5	-----	66.8	-----	77.5	-----	57.9	-----

Trend of Private Employment, by States

A COMPARISON of employment and pay rolls by States and geographic divisions between February and March 1936 for all groups combined except building construction and class I railroads and for all manufacturing industries combined, based on data supplied by reporting establishments is given in table 4. The percentage changes shown, unless otherwise noted, are unweighted—that is, the industries included in the manufacturing group and in the grand total have not been weighted according to their relative importance.

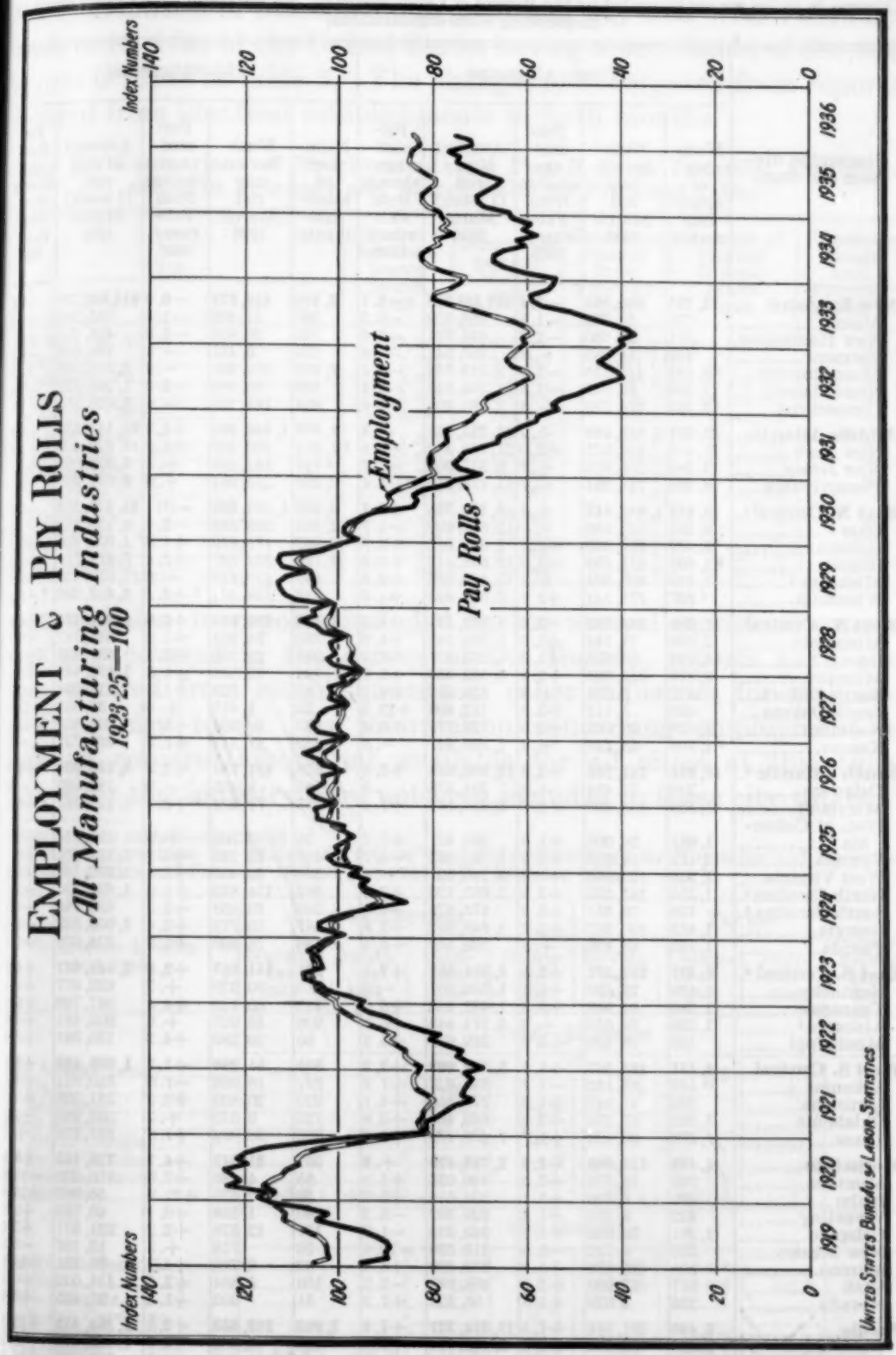

EMPLOYMENT & PAY ROLLS
All Manufacturing Industries
1923-25—100
Index Numbers
140
120
100
80
60
40
20
0
Employment
Pay Rolls
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
United States Bureau of Labor Statistics

Table 4.—Comparison of Employment and Pay Rolls in Identical Establishments in February and March 1936, by Geographic Divisions and by States

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll March 1936	Percentage change from February 1936	Amount of pay roll (1 week) March 1936	Percentage change from February 1936	Number of establishments	Number on pay roll March 1936	Percentage change from February 1936	Amount of pay roll (1 week) March 1936	Percentage change from February 1936
New England	**13,725**	**806,904**	**−2.4**	**$17,358,748**	**−2.7**	**3,276**	**549,073**	**−0.9**	**$11,035,776**	**−1.6**
Maine	774	50,732	−1.3	966,102	−3.2	260	41,402	−1.6	745,389	−3.8
New Hampshire	611	32,980	−2.7	635,731	−3.6	180	26,816	−2.6	494,761	−4.4
Vermont	438	14,996	−.4	307,541	−.8	124	9,442	−.5	185,968	−1.2
Massachusetts	[1] *8,582*	*445,733*	*−3.5*	*9,919,733*	*−3.1*	*1,638*	*259,568*	*−.6*	*5,515,383*	*−.9*
Rhode Island	1,197	85,733	−1.3	1,734,142	−2.4	390	66,686	−2.2	1,265,725	−2.6
Connecticut	2,123	176,730	−.4	3,795,499	−1.4	684	145,159	−.4	3,028,550	−1.4
Middle Atlantic	**32,937**	**1,843,469**	**+.7**	**45,235,158**	**−.5**	**4,882**	**1,086,503**	**+1.3**	**25,140,552**	**+3.2**
New York	21,453	836,375	+2.0	21,743,442	+2.8	[2] *1,914*	*406,336*	*+2.5*	*10,240,497*	*+4.2*
New Jersey	3,286	258,813	+.6	6,317,900	+2.3	[3] *745*	*224,503*	*+.4*	*5,209,099*	*+2.1*
Pennsylvania	8,198	748,281	−.7	17,173,816	−5.4	*2,223*	*455,664*	*+.8*	*9,690,956*	*+2.7*
East N. Central [4]	**19,452**	**1,882,442**	**+.5**	**46,562,738**	**+5.1**	**6,926**	**1,421,669**	**−(5)**	**35,379,152**	**+5.6**
Ohio [4]	8,103	522,886	−.8	12,802,099	+1.7	2,261	369,355	−2.4	9,135,551	+1.0
Indiana	*2,226*	*207,609*	*+1.5*	*4,904,011*	*+6.7*	*903*	*171,670*	*+1.3*	*4,070,843*	*+7.6*
Illinois	[6] *4,607*	*511,599*	*+1.8*	*12,392,417*	*+3.5*	*2,122*	*331,537*	*+1.4*	*7,919,716*	*+4.9*
Michigan [4]	3,519	468,204	+.1	12,469,956	+9.8	*898*	*410,643*	*−.2*	*11,010,346*	*+9.8*
Wisconsin	[7] *997*	*172,144*	*+1.1*	*3,994,255*	*+4.8*	*742*	*138,464*	[8] *+2.1*	*3,242,696*	[9] *+9.4*
West N. Central	**11,584**	**387,780**	**+2.0**	**8,812,521**	**+4.3**	**2,137**	**184,463**	**+1.9**	**4,064,523**	**+4.9**
Minnesota	2,088	78,144	+1.6	1,860,142	+4.9	380	34,984	+1.3	811,747	+6.7
Iowa	1,723	55,635	+1.7	1,253,457	+6.3	388	29,256	+3.1	651,483	+9.3
Missouri	3,179	156,065	+2.4	3,513,434	+3.8	748	79,346	+1.5	1,672,448	+3.1
North Dakota	577	5,014	+.8	120,072	+4.1	47	723	+1.3	18,598	+1.4
South Dakota	490	5,111	+2.5	112,400	+13.3	32	1,617	+.6	33,636	+27.9
Nebraska	1,628	32,083	+4.5	729,775	+8.4	153	10,994	+5.8	255,874	+12.3
Kansas	[9] *1,899*	*55,728*	*+.6*	*1,223,241*	*−.3*	*389*	*27,543*	*+1.2*	*620,737*	*−.3*
South Atlantic [4]	**10,924**	**751,290**	**+1.9**	**13,906,698**	**+2.5**	**2,628**	**491,785**	**+2.2**	**8,153,334**	**+3.9**
Delaware	219	12,684	−.9	294,575	.3	81	8,635	−.9	187,969	−.9
Maryland	*1,580*	*108,990*	*+1.7*	*2,346,169*	*+1.1*	*557*	*71,202*	[8] *+2.4*	*1,448,513*	[9] *+1.3*
Dist. of Columbia	1,061	36,008	+1.6	883,421	+2.2	38	3,109	+.9	104,314	+1.9
Virginia	2,112	94,516	+2.4	1,765,063	+4.7	416	63,228	+3.1	1,134,676	+6.2
West Virginia	1,229	135,995	+1.3	3,210,021	−.4	238	52,450	+1.4	1,220,184	+7.5
North Carolina [4]	1,355	145,533	+2.0	2,083,120	+3.0	562	134,822	+1.9	1,896,484	+3.1
South Carolina [4]	758	70,631	+3.2	975,878	+4.8	205	63,158	+3.3	836,786	+4.9
Georgia	1,465	100,507	+2.4	1,548,892	+2.8	347	76,773	+2.4	1,050,338	+2.5
Florida	1,145	46,426	+.8	799,559	+3.4	184	18,408	+1.2	274,070	+4.2
East S. Central [4]	**4,537**	**257,572**	**+2.0**	**4,584,369**	**+2.4**	**894**	**154,567**	**+2.3**	**2,548,647**	**+5.3**
Kentucky	1,459	77,630	+1.1	1,595,707	−.8	263	30,929	+.7	622,077	+3.4
Tennessee	1,289	84,948	+3.8	1,467,590	+5.0	310	60,122	+4.4	987,708	+6.5
Alabama [4]	1,239	78,658	+.9	1,271,448	+3.1	226	53,227	+.6	803,481	+5.6
Mississippi	550	16,336	+3.6	249,624	+5.3	95	10,289	+4.2	135,381	+5.0
West S. Central	**4,151**	**161,367**	**+1.4**	**3,390,069**	**+2.3**	**919**	**84,200**	**+1.3**	**1,666,429**	**+2.0**
Arkansas	[10] *558*	*22,183*	*−1.1*	*359,943*	*+1.2*	*224*	*16,003*	*−1.0*	*240,844*	*+3.2*
Louisiana	938	41,847	+1.6	777,555	+4.1	210	20,803	+2.9	331,389	+5.0
Oklahoma	1,382	37,234	+2.2	849,401	+3.8	123	9,370	+.7	202,980	+2.9
Texas	*1,273*	*60,103*	*+1.7*	*1,405,170*	*+1.0*	*362*	*38,024*	*+1.6*	*891,216*	*+.4*
Mountain	**4,482**	**115,990**	**+1.6**	**2,792,429**	**+.9**	**567**	**31,812**	**+4.7**	**773,155**	**+9.6**
Montana	703	16,773	+2.5	440,923	+5.8	85	4,486	+7.5	110,239	+13.6
Idaho	479	8,759	+5.1	194,514	+9.7	59	2,635	+21.9	56,867	+26.5
Wyoming	322	8,183	+1.4	229,392	−3.2	40	1,558	+6.1	46,783	+9.8
Colorado	1,261	39,955	+1.1	949,335	−1.2	171	12,876	+2.2	321,571	+7.4
New Mexico	353	5,722	−8.8	113,596	−13.4	30	718	+.3	13,107	−7.5
Arizona	521	15,539	+4.6	369,800	+6.4	42	2,753	+4.1	63,151	+13.1
Utah	617	17,980	+1.2	408,349	−2.2	109	5,884	+2.5	134,012	+6.3
Nevada	226	3,079	+1.8	86,520	+7.2	31	902	+1.3	27,425	+7.8
Pacific	**6,460**	**391,543**	**+1.8**	**10,274,327**	**+7.3**	**2,065**	**213,633**	**+2.8**	**5,504,079**	**+10.1**
Washington	2,998	85,918	+2.2	2,145,711	+6.6	484	46,263	+3.3	1,120,576	+10.2
Oregon	1,342	45,809	+2.9	1,126,182	+9.1	261	24,595	+4.3	569,299	+13.8
California	[11] *2,120*	*259,816*	*+1.5*	*7,002,434*	*+7.2*	*1,320*	*142,775*	*+2.4*	*3,874,204*	*+9.6*

[1] Includes banks and trust companies, construction, municipal, agricultural, and office employment, amusement and recreation, professional services, and trucking and handling.
[2] Includes laundering and cleaning, and water, light, and power.
[3] Includes laundries. (Footnotes continued on p. 1703.)

Private Employment and Pay Rolls in Principal Cities

A COMPARISON of March employment and pay rolls with February totals in 13 cities of the United States having a population of 500,000 or over is made in table 5. The changes are computed from reports received from identical establishments in both months.

Table 5.—Comparison of Employment and Pay Rolls in Identical Establishments in February and March 1936, by Principal Cities

City	Number of establishments March 1936	Number on pay roll March 1936	Percentage change from February 1936	Amount of pay roll (1 week) March 1936	Percentage change from February 1936
New York, N. Y.	17,249	673,968	+1.9	$18,092,547	+3.4
Chicago, Ill.	3,926	366,240	+1.0	9,501,512	+3.4
Philadelphia, Pa.	2,631	218,652	+.6	5,418,532	+1.3
Detroit, Mich.	1,505	314,538	+.1	8,735,061	+9.8
Los Angeles, Calif.	2,748	124,778	+2.1	3,312,958	+6.7
Cleveland, Ohio	1,808	130,516	+1.5	3,317,464	+6.1
St. Louis, Mo.	1,629	121,275	+2.9	2,814,036	+5.6
Baltimore, Md.	1,307	81,754	+3.0	1,853,475	+5.2
Boston, Mass.	3,819	163,277	−.3	3,880,292	−.6
Pittsburgh, Pa.	1,493	179,706	+1.5	4,424,125	+4.3
San Francisco, Calif.	1,453	79,515	+3.2	2,146,890	+7.8
Buffalo, N. Y.	1,075	71,705	+2.6	1,726,126	+4.8
Milwaukee, Wis.	699	70,046	+1.8	1,734,678	+3.2

In addition to reports included in the several industrial groups regularly covered in the survey of the Bureau, reports have also been secured from establishments in other industries for inclusion in these city totals. As information concerning employment in building construction is not available for all cities at this time, figures for this industry have not been included in these city totals.

Footnotes to table 4—continued.

[6] Revised percentages for "Total—All groups" and "Manufacturing" for November and December 1935, and January and February 1936 are presented in the following table:

Geographic division and State	Employment				Pay roll			
	November 1935	December 1935	January 1936	February 1936	November 1935	December 1935	January 1936	February 1936
	Total—All groups							
East North Central	+1.4				+2.9	+3.9	−7.0	−4.3
Ohio			−3.7		+.1		−5.7	−.5
Michigan				−2.2				−15.1
South Atlantic								+1.8
North Carolina				+.1				+.4
South Carolina				−.2				
East South Central						+5.2		
Alabama	+3.5	+14.0			+2.4	+21.4	−2.4	+2.2
	Manufacturing							
East North Central					+2.3	+4.4		−3.2
Ohio			−0.7	−0.2	+1.0	+4.6	−5.2	−.8
South Atlantic				+.2				+.2
North Carolina				+.1				+.4
East South Central						+3.8		
Alabama	+3.8	+4.4	−.4	+.7	+2.9	+11.1	−3.4	+.6

[8] Less than 1/10 of 1 percent.
[9] Includes automobile and miscellaneous services, restaurants, and building and contracting.
[7] Includes construction, but does not include hotels, restaurants, and public works.
[8] Weighted percentage change.
[9] Includes financial institutions, construction, miscellaneous services, and restaurants.
[10] Includes automobile dealers and garages, and sand, gravel, and building stone.
[11] Includes banks, insurance, and office employment.

Public Employment

EMPLOYMENT created by the Federal Government includes employment in the regular agencies of the Government, employment on the various construction programs wholly or partially financed by Federal funds, and employment on relief work projects.

Construction projects financed by the Public Works Administration are those projects authorized by Title II, National Industrial Recovery Act of June 16, 1933. This program of public works was extended to June 30, 1937, by the Emergency Relief Appropriation Act of 1935.

The Works Program was inaugurated by the President in a series of Executive orders by authority of Public Resolution No. 11, approved April 8, 1935. Employment created by this program includes employment on Federal projects and employment on projects operated by the Works Progress Administration. Federal projects are those conducted by Federal agencies which have received allotments from The Works Program fund. Projects operated by the Works Progress Administration are those projects conducted under the supervision of the W. P. A.

The emergency conservation program (Civilian Conservation Corps) created in April 1933 has been further extended under authority of the Emergency Relief Appropriation Act of 1935.

Executive Service of the Federal Government

STATISTICS of employment in the executive branches of the Federal Government in March 1935, February 1936, and March 1936 are presented in table 6.

Table 6.—Employees in the Executive Service of the United States Government, March 1935, February and March 1936 [1]

[Subject to revision]

Item	District of Columbia [2]			Outside District of Columbia			Entire Service [1]		
	Permanent	Temporary	Total	Permanent	Temporary [3]	Total	Permanent	Temporary [3]	Total
Number of employees:									
March 1935	90,976	8,157	99,133	510,906	89,578	600,484	601,882	97,735	699,617
February 1936 [4]	105,536	7,161	112,697	593,839	93,787	687,626	699,375	100,948	800,323
March 1936	105,524	7,215	112,739	598,953	94,712	693,665	704,477	101,927	[5] 806,404
Percentage change:									
March 1935 to March 1936	+15.99	−11.55	+13.72	+17.23	+5.73	+15.52	+17.05	+4.29	+15.26
February 1936 to March 1936	(6)	+.75	(6)	+.86	+.99	+.88	+.73	+.97	+.76
Labor turn-over, March 1936:									
Additions [7]	1,991	1,357	3,348	12,383	15,178	27,561	14,374	16,535	30,909
Separations [7]	2,349	784	3,133	9,332	12,395	21,727	11,681	13,179	24,860
Turn-over rate per 100	1.89	10.91	2.78	1.56	13.15	3.15	1.66	12.99	3.09

[1] Based on March reports received up to Apr. 22, 1936.
[2] Includes employees of Columbia Institution for the Deaf and Howard University.
[3] Not including field employees of Post Office Department or 8,389 employees hired under letters of authorization by the Department of Agriculture with a pay roll of $319,081.
[4] Revised.
[5] Includes 32 employees by transfer previously reported as separations by transfer not actual additions for March.
[6] Less than 1/10 of 1 percent.
[7] Not including employees transferred within the Government service, as such transfers should not be regarded as labor turn-over.

The monthly record of employment in the executive departments of the United States Government from January 1935 to March 1936, inclusive, is shown in table 7.

Table 7.—Employment in the Executive Departments of the United States Government by Months, January 1935 to March 1936

[Subject to revision]

Month	District of Columbia [1]	Outside District of Columbia	Total [1]	Month	District of Columbia [1]	Outside District of Columbia	Total [1]
1935				*1935*—Cont'd			
January	96,081	592,140	688,221	September	109,195	678,229	787,424
February	97,251	597,769	695,020	October	110,583	687,115	797,698
March	99,133	600,484	699,617	November	111,196	690,202	801,398
April	101,429	609,027	710,456	December	112,088	704,135	816,223
May	103,019	609,573	712,592	*1936*			
June	103,977	614,259	718,236	January	111,797	689,499	801,296
July	104,747	631,134	735,881	February [2]	112,697	687,626	800,323
August	107,037	663,086	770,123	March	112,739	693,665	806,404

[1] Includes employees of Columbia Institution for the Deaf and Howard University.
[2] Revised.

Construction Projects Financed by the Public Works Administration

DETAILS concerning employment, pay rolls, and man-hours worked during March [1] on construction projects financed by Public Works Administration funds are given in table 8, by type of project.

Table 8.—Employment and Pay Rolls on Construction Projects Financed From Public Works Funds, Month Ending Mar. 15, 1936

[Subject to revision]

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
	Federal projects—Financed from N. I. R. A. funds					
All projects [3]	[2] 85,438	79,833	$7,342,079	9,967,137	$0.737	$8,796,326
Building construction [3]	12,999	10,195	764,812	1,032,410	.741	1,634,507
Forestry	35	26	2,760	3,619	.763	3,323
Naval vessels	28,464	27,988	3,512,459	4,292,244	.818	2,573,935
Public roads [4]	(5)	19,439	824,714	1,672,350	.493	1,030,000
Reclamation	12,599	12,084	1,310,693	1,780,953	.736	2,037,830
River, harbor, and flood control	9,058	7,460	764,446	932,674	.820	1,322,082
Streets and roads	1,391	1,225	63,031	109,081	.578	85,894
Water and sewerage	36	34	1,959	3,237	.605	13,783
Miscellaneous	1,417	1,382	97,205	140,569	.692	94,972

[1] Maximum number employed during any 1 month by each contractor and Government agency doing force-account work.
[2] Includes weekly average for public roads.
[3] Includes a maximum of 3,675 and an average of 2,725 employees working on low-cost housing projects financed from E. R. A. A. funds, who were paid $167,793 for 317,212 man-hours of labor. Material orders in the amount of $310,823 were placed for these projects. These data are also included in separate tables covering projects financed by The Works Program.
[4] Estimated by the Bureau of Public Roads.
[5] Not available; average number included in total.

[1] Unless otherwise expressly stated, when March is referred to in this section it may be accepted as meaning the month ending Mar. 15.

Table 8.—Employment and Pay Rolls on Construction Projects Financed From Public Works Funds, Month Ending Mar. 15, 1936—Continued

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed	Weekly average				
	Non-Federal projects—Financed from N. I. R. A. funds					
All projects	53,884	43,370	$3,538,829	4,012,650	$0.882	$9,127,433
Building construction	29,169	23,706	2,059,368	2,154,225	.956	3,726,756
Railroad construction	1,941	1,679	36,563	62,513	.585	2,376,942
Streets and roads	4,370	3,259	220,126	292,416	.753	599,845
Water and sewerage	15,751	12,685	1,081,741	1,291,505	.838	1,840,845
Miscellaneous	2,653	2,041	141,031	211,991	.665	583,045
	Non-Federal projects—Financed from E. R. A. A. 1935 funds [1]					
All projects	60,548	47,494	$2,864,487	4,208,334	$0.681	$10,237,520
Building construction	40,730	31,917	1,857,275	2,754,197	.674	6,794,497
Electrification	234	186	10,359	14,408	.719	84,109
Heavy engineering	1,027	696	74,217	84,195	.881	93,421
Reclamation	570	404	26,055	44,973	.579	48,288
River, harbor, and flood control	23	19	638	954	.669	1,053
Streets and roads	4,306	3,397	165,120	277,554	.595	558,347
Water and sewerage	13,227	10,514	709,447	994,619	.713	2,622,939
Miscellaneous	431	361	21,376	37,434	.571	34,866

[1] These data are also included in separate tables covering projects financed by The Works Program.

Federal construction projects are financed by allotments made by the Public Works Administration to the various agencies and departments of the Federal Government from funds provided under the National Industrial Recovery Act. The major portion of the low-cost housing program now under way, however, is financed by funds provided under the Emergency Relief Appropriation Act of 1935. The work is performed either by commercial firms, which have been awarded contracts, or by day labor hired directly by the Federal agencies.

Non-Federal projects are financed by allotments made by the Public Works Administration from funds available under either the National Industrial Recovery Act or the Emergency Relief Appropriation Act of 1935. Most of the allotments have been made to the States and their political subdivisions, but occasionally allotments have been made to commercial firms. In financing projects for the States or their political subdivisions from funds appropriated under the National Industrial Recovery Act, the Public Works Administration makes a direct grant of not more than 30 percent of the total construction cost. When funds provided under the Emergency Relief Appropriation Act of 1935 are used to finance a non-Federal project, as much as 45 percent of the total cost may be furnished in the form of a grant. The remaining 55 percent or more of the cost is financed by the recipient. When circumstances justify such action, the Public

Works Administration may provide the grantee with the additional funds by means of a loan. Allotments to commercial enterprises are made only as loans. All loans made by the Public Works Administration carry interest charges and have a definite date of maturity. Collateral posted with the Public Works Administration to secure loans may be offered for sale to the public. In this way a revolving fund is provided which enlarges the scope of the activities of the Public Works Administration.

Commercial loans have been made, for the most part, to railroads. Railroad work financed by loans made by the Public Works Administration falls under three headings: First, construction work in the form of electrification, the laying of rails and ties, repairs to buildings, bridges, etc.; second, the building and repairing of locomotives and passenger and freight cars in shops operated by the railroads; and third, locomotive and passenger- and freight-car building in commercial shops.

Information concerning the first type of railroad work, i. e., construction, is shown in table 8 (p. 1706). Employment in car and locomotive shops owned by the railroads and in commercial car and locomotive shops is shown in a separate table. (See table 9.)

Employment, pay rolls, and man-hours worked during March in railway-car and locomotive shops on projects financed by the Public Works Administration fund are shown in table 9.

Table 9.—Employment and Pay Rolls in Railway-Car and Locomotive Shops on Work Financed From Public Works Administration Funds, March 1936

[Subject to revision]

Geographic division	Wage earners		Monthly pay-roll disbursement	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Semimonthly average				
All divisions	2,366	(2)	$235,781	331,528	$0.711	(2)
	Railroad shops					
All divisions	2,039	1,972	$153,223	221,423	$0.692	$56,123
New England	134	134	9,771	13,416	.728	438
Middle Atlantic	363	345	18,297	29,436	.622	2,828
East North Central	365	349	27,551	38,527	.715	16,174
East South Central	1,177	1,144	97,604	140,044	.697	36,683
	Commercial shops					
All divisions	327	(2)	$82,558	110,105	$0.750	(2)
Middle Atlantic	30	(2)	3,490	5,234	.667	(2)
East North Central	297	(2)	79,068	104,871	.754	(2)

[1] Maximum number employed during either semimonthly period by each shop.
[2] Data not available.

Monthly Trend

A summary of employment, pay rolls, and man-hours worked on projects financed from Public Works Administration funds from July 1933 to March 1936 is given in table 10.

Table 10.—Employment and Pay Rolls, July 1933 to March 1936, Inclusive, on Projects Financed From Public Works Administration Funds

[Subject to revision]

Year and month	Maximum number of wage earners [1]	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
July 1933 to March 1936, inclusive [2]	----------	$636,029,632	1,010,753,084	$0.629	$1,177,082,608
July 1933 to December 1934, inclusive	----------	341,252,478	585,280,577	.583	[3] 685,504,204
1935					
January	304,723	18,462,677	27,478,022	.672	[3] 30,746,857
February	272,273	16,896,475	25,144,558	.672	29,264,484
March	281,461	17,400,798	26,008,063	.669	27,276,566
April	333,045	20,939,741	31,387,712	.667	31,645,166
May	394,875	24,490,087	36,763,164	.667	[3] 36,893,840
June	414,306	25,386,962	38,800,178	.654	[3] 42,017,642
July	405,332	24,968,785	37,845,047	.660	41,936,424
August	394,509	25,292,656	37,133,989	.681	46,954,71[illegible]
September [2]	344,520	22,772,317	32,478,773	.701	[3] 40,988,896
October [2]	308,632	21,692,439	30,358,351	.715	35,042,853
November [2]	271,111	19,512,866	26,317,564	.741	29,046,684
December [2]	231,692	16,360,315	21,637,131	.756	25,507,315
1936					
January [2]	197,820	14,399,381	19,195,535	.750	22,565,818
February [2]	176,764	12,220,479	16,404,771	.745	23,473,743
March [2]	202,236	13,981,176	18,519,649	.755	28,217,402

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public-road projects.

[2] Includes wage earners employed on projects under the jurisdiction of P. W. A. which are financed from E. R. A. A. 1935 funds. These data are also included in tables covering projects financed by The Works Program.

[3] Includes orders placed by railroads for new equipment.

The Works Program

A DETAILED record of employment, pay rolls, and man-hours worked on projects financed by The Works Program in March [1] is shown in table 11, by type of project.

[1] Unless otherwise expressly stated, when March is referred to in this section, it may be accepted as meaning the month ending Mar. 15.

Table 11.—Employment and Pay Rolls on Projects Financed by The Works Program, March 1936

[Subject to revision]

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
Federal projects						
All projects	325,505	284,006	$14,431,789	35,243,886	$0.409	$8,028,299
Building construction	32,797	29,608	1,726,465	3,305,439	.552	881,455
Electrification	535	500	24,074	52,739	.456	136,670
Forestry	15,405	14,551	771,385	1,879,694	.410	
Grade-crossing elimination	10,907	8,834	502,355	893,425	.562	989,818
Heavy engineering	204	150	13,324	23,459	.568	11,436
Hydro-electric power plants	2,740	2,553	57,375	252,755	.227	32,211
Plant, crop, and livestock conservation	32,165	27,263	1,065,670	5,445,062	.196	33,208
Professional, technical, and clerical	30,822	30,780	2,001,237	3,687,771	.543	85,760
Public roads	50,268	39,569	1,994,743	4,392,111	.454	2,306,018
Reclamation	89,178	84,064	2,780,117	8,303,875	.335	908,236
River, harbor, and flood control	44,706	31,560	2,718,688	5,267,759	.516	2,256,896
Streets and roads	6,780	6,274	298,230	729,868	.409	151,773
Water and sewerage	882	840	43,804	101,345	.432	14,200
Miscellaneous	8,116	7,460	434,322	908,584	.478	220,618
P. W. A. projects financed from E. R. A. A. 1935 funds [2]						
All projects [3]	64,223	50,219	$3,032,280	4,525,546	$0.670	$10,548,343
Building construction [3]	44,405	34,642	2,025,068	3,071,409	.659	7,105,320
Electrification	234	186	10,359	14,408	.719	84,109
Heavy engineering	1,027	696	74,217	84,195	.881	93,421
Reclamation	570	404	26,055	44,973	.579	48,288
River, harbor, and flood control	23	19	638	954	.669	1,053
Streets and roads	4,306	3,397	165,120	277,554	.595	558,347
Water and sewerage	13,227	10,514	709,447	994,619	.713	2,622,939
Miscellaneous	431	361	21,376	37,434	.571	34,866
Projects operated by Works Progress Administration						
All projects [3]	[4] 3,044,685		$142,827,306	338,477,216	$0.422	[5] $17,592,687
Conservation	166,425		7,671,327	19,311,231	.397	615,636
Highway, road, and street	1,180,353		50,099,746	131,162,242	.382	4,716,267
Housing [3]	6,079		366,903	628,298	.584	8,838
Professional, technical, and clerical	254,560		15,652,462	26,822,113	.584	508,090
Public building	219,276		11,511,320	22,013,485	.523	4,178,893
Publicly owned or operated utilities [6]	267,741		12,734,937	28,711,641	.444	3,114,530
Recreational facilities [7]	322,217		17,656,911	35,480,912	.498	2,511,389
Rural electrification and electric utilities	3,389		164,785	377,138	.437	62,875
Sanitation and health	115,392		4,613,540	13,019,714	.354	593,436
Sewing, canning, gardening, etc	366,379		15,182,162	43,210,895	.351	623,842
Transportation	52,886		2,632,455	5,763,903	.457	530,689
Not elsewhere classified	98,778		4,540,758	11,975,644	.379	128,202

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

[2] These data are also included in separate tables covering projects under the jurisdiction of the Public Works Administration.

[3] Data for a maximum of 410 and an average of 410 employees who were paid $23,094 for 43,964 man-hours on demolition work at the site of low-cost housing projects are included both under P. W. A. projects financed from E. R. A. A. 1935 funds and under projects operated by the Works Progress Administration.

[4] This total differs from the sum of the individual items since 8,790 employees worked on more than one type of project.

[5] Value of material orders placed during month ended Mar. 31, 1936.

[6] Exclusive of electric utilities.

[7] Exclusive of buildings.

Monthly Trend

Employment, pay rolls, and man-hours worked on projects financed by The Works Program from the beginning of the program in July 1935 to March 1936 are given in table 12.

Table 12.—Employment and Pay Rolls July 1935 to March 1936, Inclusive, on Projects Financed by The Works Program

[Subject to revision]

Month and year	Maximum number employed [1]	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Federal projects				
July 1935 to March 1936, inclusive	----------	$68,218,280	156,289,229	$0.436	$58,818,441
1935					
July	5,131	276,839	607,318	.456	164,004
August	32,672	1,215,990	2,791,802	.436	1,684,347
September	76,524	3,754,773	7,815,795	.480	4,071,945
October	129,064	6,243,023	13,669,524	.457	9,723,568
November	168,234	8,391,581	18,870,799	.445	9,214,916
December	217,027	10,195,537	22,160,371	.460	7,258,162
1936					
January	248,929	11,179,541	25,955,820	.431	8,988,622
February	298,589	12,529,207	29,173,914	.429	9,684,578
March	325,505	14,431,789	35,243,886	.409	8,028,299
	P. W. A. projects financed from E. R. A. A. 1935 funds [2]				
September 1935 to March 1936, inclusive	----------	$6,617,064	9,752,256	$0.679	$24,817,932
1935					
September	317	10,575	17,493	.605	28,573
October	1,184	54,380	78,928	.689	159,568
November	3,422	149,545	223,363	.670	444,588
December	9,203	446,783	676,307	.661	1,392,765
1936					
January	23,740	1,128,635	1,621,349	.696	3,632,378
February	39,848	1,794,866	2,609,270	.688	8,611,717
March	64,223	3,032,280	4,525,546	.670	10,548,343
	Projects operated by Works Progress Administration				
August 1935 to March 1936, inclusive	----------	$577,069,501	1,348,737,961	$0.428	$101,392,359
1935					
August	73,153	1,199,936	2,581,988	.465	3,202,136
September	258,830	10,303,491	17,790,436	.579	2,089,324
October	516,581	23,357,955	50,739,568	.460	8,236,283
November	1,202,471	44,497,604	94,677,998	.470	14,836,346
December	2,335,610	91,552,345	201,799,051	.454	17,678,214
1936					
January	2,755,802	127,054,184	310,755,226	.409	19,860,772
February	2,900,645	136,276,680	331,916,478	.411	17,896,597
March	3,044,685	142,827,306	338,477,216	.422	17,592,687

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

[2] These data are also included in tables covering projects under the jurisdiction of the Public Works Administration.

Emergency Conservation Work

DATA concerning employment and pay rolls in emergency conservation work in February and March 1936 is given in table 13.

Table 13.—Employment and Pay Rolls in Emergency Conservation Work, February and March 1936

Group	Number of employees		Amount of pay rolls	
	March	February	March	February
All groups	353,471	452,165	$17,213,224	[1] $20,448,752
Enrolled personnel	301,177	398,629	9,405,759	12,449,190
Reserve officers	8,078	8,533	1,683,296	1,781,298
Educational advisers [2]	1,886	1,989	324,912	341,970
Supervisory and technical [3]	[4] 42,330	[5] 43,014	[4] 5,799,257	[1] [5] 5,876,194

[1] Revised.
[2] Included in executive service table.
[3] Includes carpenters, electricians, and laborers.
[4] 40,879 employees and pay roll of $5,691,067 included in executive service table.
[5] 41,480 employees and pay roll of $5,744,383 included in executive service table.

The employment and pay-roll data for emergency conservation workers are collected by the Bureau of Labor Statistics from the War Department, the Department of Agriculture, the Department of Commerce, the Treasury Department, and the Department of the Interior. The monthly pay of the enrolled personnel is distributed as follows: 5 percent are paid $45; 8 percent, $36; and the remaining 87 percent, $30. The enrolled men, in addition to their pay, are provided with board, clothing, and medical services.

Monthly statistics of employment and pay rolls on the emergency conservation program from January 1935 to March 1936, inclusive, are presented in table 14.

Table 14.—Monthly Totals of Employees and Pay Rolls in Emergency Conservation Work, January 1935 to March 1936

[Subject to revision]

Month	Number of employees	Monthly pay-roll disbursements	Month	Number of employees	Monthly pay roll disbursements
1935			*1935*—Contd.		
January	398,692	$16,757,883	September	534,057	$24,404,708
February	373,850	16,320,803	October	550,650	24,830,752
March	294,955	14,188,097	November	543,958	23,957,751
April	368,537	16,401,114	December	506,605	21,905,516
May	385,192	17,719,018	*1936*		
June	427,556	19,766,881	January	476,609	21,387,521
July	480,586	22,070,577	February	452,165	[1] 20,448,752
August	590,362	26,235,863	March	353,471	17,213,224

[1] Revised.

Construction Projects Financed by the Reconstruction Finance Corporation

STATISTICS of employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation in March are presented in table 15, by type of project.

Table 15.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Type of Project, March 1936

[Subject to revision]

Type of project	Number of wage earners	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
All projects	8,134	$916,059	1,193,145	$0.768	$1,385,640
Bridges	1,259	179,737	160,587	1.119	243,442
Building construction [1]	314	20,985	29,999	.700	35,308
Reclamation	184	1,868	3,416	.547	48
Water and sewerage	5,068	585,733	814,669	.719	1,062,745
Miscellaneous	1,309	127,736	184,474	.692	44,097

[1] Includes 123 employees, pay roll of $7,395, 8,208 man-hours worked, and material amounting to $7,454 on projects financed by the R. F. C. Mortgage Co.

A monthly summary of employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation from January 1935 to March 1936, inclusive, is given in table 16.

Table 16.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, January 1935 to March 1936

[Subject to revision]

Month	Number of wage earners	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
1935					
January	11,180	$1,054,708	1,484,190	$0.711	$3,966,718
February	10,373	1,048,593	1,457,662	.719	5,028,547
March	9,586	890,333	1,253,493	.710	1,072,886
April	10,300	1,007,424	1,389,072	.725	2,517,175
May	10,506	1,100,977	1,522,959	.723	2,287,090
June	11,901	1,191,336	1,592,744	.748	3,998,576
July	9,581	1,001,653	1,349,064	.742	1,495,108
August	9,415	1,020,208	1,367,071	.746	965,174
September	9,301	957,846	1,271,475	.753	1,016,202
October	9,192	952,790	1,269,273	.751	1,228,928
November	9,793	1,001,408	1,344,234	.745	1,411,338
December	7,786	869,459	1,160,845	.749	1,383,293
1936					
January	7,560	850,271	1,093,350	.778	1,355,520
February	7,961	905,455	1,179,431	.768	1,436,119
March	8,134	916,059	1,193,145	.768	1,385,640

Construction Projects Financed from Regular Governmental Appropriations

WHENEVER a construction contract is awarded or force-account work is started by a department or agency of the Federal Government, the Bureau of Labor Statistics is immediately notified, on forms supplied by the Bureau, of the name and address of the contractor, the amount of the contract, and the type of work to be performed. Blanks are then mailed by the Bureau to the contractor or Government agency doing the work. These reports are returned to the Bureau and show the number of men on pay rolls, the amounts disbursed for pay, the number of man-hours worked on the project, and the value of the different types of materials for which orders were placed during the month.

The following tables present data concerning construction projects on which work has started since July 1, 1934. The Bureau does not have statistics covering projects which were under way previous to that date.

Data concerning employment, pay rolls, and man-hours worked on construction projects financed from regular governmental appropriations during March are given in table 17, by type of project.

Table 17.—Employment on Construction Projects Financed From Regular Governmental Appropriations, by Type of Project, March 1936

[Subject to revision]

Type of project	Number of wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
All projects	[3] 47,538	45,250	$3,674,896	5,814,569	$0.632	$7,185,019
Building construction	8,244	6,818	514,051	777,663	.661	1,480,556
Electrification	42	38	2,211	4,768	.464	2,219
Naval vessels	13,280	13,025	1,509,657	1,828,888	.825	3,178,809
Public roads [2]	(4)	14,490	972,407	1,849,100	.526	1,880,275
Reclamation	27	20	1,413	2,133	.662	5,730
River, harbor, and flood control	8,278	8,006	554,572	1,109,919	.500	541,147
Streets and roads	2,078	1,911	74,930	172,917	.433	48,581
Water and sewerage	69	50	2,428	5,190	.468	1,033
Miscellaneous	1,030	892	43,227	63,991	.676	46,669

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
[2] Includes weekly average for public roads.
[3] Estimated by the Bureau of Public Roads.
[4] Not available; average number included in total.

Employment, pay rolls, and man-hours worked on construction projects financed from regular governmental appropriations from January 1935 to March 1936 are shown, by months, in table 18.

Table 18.—Employment on Construction Projects Financed From Regular Governmental Appropriations, January 1935 to March 1936

[Subject to revision]

Month	Number of wage earners	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
1935					
January	12,784	$669,199	1,062,118	$0.630	$3,163,946
February	13,106	704,190	1,102,864	.639	1,962,087
March	14,659	862,886	1,359,043	.635	2,709,912
April	22,270	1,389,583	2,210,893	.629	2,562,404
May	23,057	1,599,937	2,370,925	.675	2,704,333
June	26,191	1,904,454	2,842,470	.670	2,960,270
July	25,788	1,890,209	2,752,801	.687	3,079,618
August	36,491	2,694,822	4,137,008	.651	4,459,551
September	45,592	3,199,785	5,066,873	.632	5,801,445
October	59,091	4,193,129	6,716,798	.624	7,181,155
November	63,912	4,077,395	6,559,665	.622	6,690,405
December	56,780	3,707,963	5,980,118	.620	6,155,840
1936					
January	46,895	3,990,725	6,246,418	.639	5,584,611
February	43,915	3,619,025	5,545,115	.653	6,669,016
March	47,538	3,674,896	5,814,569	.632	7,185,019

State-Roads Projects

A MONTHLY record of employment and pay-roll disbursements in the construction and maintenance of State roads from January 1935 to March 1936, inclusive, is presented in table 19.

Table 19.—Employment on Construction and Maintenance of State Roads, January 1935 to March 1936 [1]

[Subject to revision]

Month	Number of employees working on—			Total pay roll
	New roads	Maintenance	Total	
1935				
January	23,537	120,283	143,820	$4,864,899
February	17,940	122,209	140,149	4,575,171
March	18,391	108,149	126,540	4,896,325
April	24,193	135,484	159,677	5,501,076
May	27,924	135,541	163,465	6,008,348
June	30,823	138,253	169,076	7,079,793
July	35,826	148,575	184,401	8,232,589
August	40,130	163,960	204,090	9,063,104
September	40,431	156,187	196,618	8,435,225
October	40,390	147,324	187,714	8,150,299
November	32,487	139,138	171,625	7,156,025
December	27,046	121,690	148,736	6,139,581
1936				
January	14,358	105,795	120,153	7,481,502
February	10,256	119,777	130,033	7,572,614
March	8,150	133,386	141,536	7,689,770

[1] Excluding employment furnished by projects financed from Public Works Administration funds.

BUILDING OPERATIONS

Summary of Building-Construction Reports for April 1936

BUILDING-CONSTRUCTION activity in April showed a marked improvement. The value of building construction for which permits were issued in April totaled $121,784,000, an increase of 10 percent compared with the permit valuation of $110,746,000 reported in March. All classes of construction registered substantial gains, but the most pronounced increase occurred in the value of permits issued for new residential buildings.

A marked increase in building construction also was shown comparing April 1936 with April 1935. The value of construction permits issued in April 1936 was 59.2 percent greater than in the corresponding month of 1935. Sharp gains in the value of permits issued were registered for all classes of construction.

Data comparing March and April 1936 are based on reports received by the Bureau of Labor Statistics from 1,471 identical cities with a population of 2,500 or over. Data comparing April 1936 with April 1935 are based on reports received by the Bureau from 768 identical cities with a population of 10,000 or over.

Comparisons, April 1936 With March 1936

A SUMMARY of building construction in 1,471 identical cities, for March and April 1936 is presented in table 1.

Table 1.—Summary of Building Construction in 1,471 Identical Cities, March and April 1936

Class of construction	Number of buildings			Estimated cost		
	April 1936	March 1936	Percentage change	April 1936	March 1936	Percentage change
All construction	57,308	47,919	+19.6	$121,783,997	$110,746,482	+10.0
New residential buildings	10,245	9,279	+10.4	52,990,603	45,887,106	+15.5
New nonresidential buildings	10,458	8,247	+26.8	42,417,814	41,399,237	+2.5
Additions, alterations, and repairs	36,605	30,393	+20.4	26,375,580	23,460,139	+12.4

Compared with March the number of buildings for which permits were issued in April increased 19.6 percent. New nonresidential buildings, with a 26.8 percent gain, showed the sharpest rise of any

of the classes of construction. The estimated cost of new residential buildings, measured by the value of permits issued in April, was $7,103,000 greater than in March; for new nonresidential buildings, the increase was $1,019,000; and for additions, alterations, and repairs to existing structures, April permit valuation showed a $2,915,000 gain over March.

A summary of the estimated cost of housekeeping dwellings and the number of families provided for in dwellings for which permits were issued in March and April 1936 is given in table 2.

Table 2.—Summary of Estimated Cost of Housekeeping Dwellings and of Number of Families Provided for in 1,471 Identical Cities, March and April 1936

Type of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	April 1936	March 1936	Percentage change	April 1936	March 1936	Percentage change
All types	$51,977,126	$45,401,280	+14.5	12,881	11,719	+9.9
1-family	42,602,537	37,184,015	+14.6	9,528	8,632	+10.4
2-family [1]	2,439,830	2,104,829	+15.9	876	790	+10.9
Multifamily [2]	6,934,759	6,112,436	+13.5	2,477	2,297	+7.8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Measured by the value of permits issued, the estimated cost of housekeeping dwellings in April showed a 14.5 percent increase over the previous month. Substantial gains were registered for all types of dwellings. The number of families provided for in all types of new dwellings increased 9.9 percent. The most marked increases occurred in the number of families provided for in one-family and two-family dwelling units.

Comparisons, April 1936 With April 1935

A SUMMARY of building construction in 768 identical cities in April 1935 and April 1936 is shown in table 3.

Table 3.—Summary of Building Construction in 768 Identical Cities, April 1935 and 1936

Class of construction	Number of buildings			Estimated cost		
	April 1936	April 1935	Percentage change	April 1936	April 1935	Percentage change
All construction	52,329	43,873	+19.3	$109,152,275	$68,550,365	+59.2
New residential buildings	8,752	4,227	+107.0	45,522,515	23,127,570	+96.8
New nonresidential buildings	9,434	7,803	+20.9	38,956,474	25,676,767	+51.7
Additions, alterations, and repairs	34,143	31,843	+7.2	24,673,286	19,746,028	+25.0

The number of buildings for which permits were issued in April 1936 was 19.3 percent greater than in April 1935. All classes of construction showed substantial increases, but new residential construction with a gain of 107 percent in the number of buildings registered the most pronounced increase. The estimated cost of building construction in April 1936, measured by the value of permits issued, was $40,602,000 greater than in the corresponding month of 1935. New residential construction, showing a gain of $22,395,000, accounted for more than one-half the increase.

Table 4 presents, in summary form, the estimated cost of new housekeeping dwellings and the number of families provided for in such dwellings, for the months of April 1935 and April 1936.

Table 4.—Summary of Estimated Cost of Housekeeping Dwellings and of Number of Families Provided for in 768 Identical Cities, April 1935 and April 1936

Type of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	April 1936	April 1935	Percentage change	April 1936	April 1935	Percentage change
All types	$45,333,567	$23,091,820	+96.3	11,254	6,524	+72.5
1-family	36,434,287	14,712,746	+147.6	8,116	3,894	+108.4
2-family [1]	2,206,621	1,041,982	+111.8	776	362	+114.4
Multifamily [2]	6,692,659	7,337,092	−8.8	2,362	2,268	+4.1

[1] Includes 1- and 2-family dwellings with stores. [2] Includes multifamily dwellings with stores.

Measured by the value of permits issued, the estimated cost of housekeeping dwellings in April 1936 was $45,334,000, an increase of 96.3 percent compared with April 1935. Increases in expenditures were indicated for one-family and two-family dwellings, but a loss occurred for multifamily dwellings. The number of families provided for in new dwellings in April showed an increase of 72.5 percent compared with the corresponding month of 1935.

Important Building Projects

PERMITS were issued during April for the following important building projects: In Waltham, Mass., for a hospital building to cost $400,000; in Newark, N. J., for a public utility building to cost $1,750,000; in New York City—in the Borough of the Bronx for apartment houses to cost nearly $1,300,000, and in Brooklyn for apartment houses to cost nearly $1,200,000; in Philadelphia, Pa., for school buildings to cost nearly $2,000,000; in Pittsburgh, Pa., for factory buildings to cost nearly $1,000,000; in Scranton, Pa., for a school building to cost over $1,000,000; in Chicago, Ill., for mercantile buildings to cost over $250,000 and for school buildings to cost nearly $900,000; in Peoria, Ill., for warehouse buildings to cost over $600,000; in Springfield, Ill., for an office building to cost $1,100,000; in Rock Island, Ill., for a school building to cost over $625,000; in Streator.

Ill., for factory buildings to cost $250,000; in Washington, D. C., for apartment houses to cost over $700,000; in Louisville, Ky., for an institutional building to cost nearly $350,000; in Dallas, Tex., for store and mercantile buildings to cost over $800,000; and in Los Angeles, Calif., for school buildings to cost nearly $700,000.

Detailed Reports for March 1936

DETAILED figures on building construction, as compiled by the Bureau of Labor Statistics, for the month of March 1936 are presented in this article. The data are the same as published in the Building Construction pamphlet for February, except for certain minor revisions or corrections.

Building Construction in Principal Cities

MARCH was featured by a brisk upturn in all branches of building construction. A canvass of 1,448 cities with a population of 2,500 or over indicates that the value of permits issued during the month for residential construction was 19.0 percent greater than in the previous month. At the same time the value of permits issued for additions, alterations, and repairs to existing structures increased 32.4 percent and a gain of 92.2 percent was reported in new nonresidential construction. The value of all building for which permits were issued in March totaled $126,815,000, an increase of 47.1 percent in comparison with the February total. (See table 1.)

Not only was building construction activity in March substantially higher than in the previous month, but it was likewise well above the level of the corresponding month of last year. This increase, moreover, was virtually country-wide and was shared by all types of construction. Residential building shows the most vigorous gain, the total value of permits issued for this type of construction in March being 87.8 percent greater than in March 1935. New nonresidential construction, however, shows an increase of 72.2 percent and a gain of 22.6 percent over a year ago is indicated in the value of permits issued for additions, alterations, and repairs to existing structures.

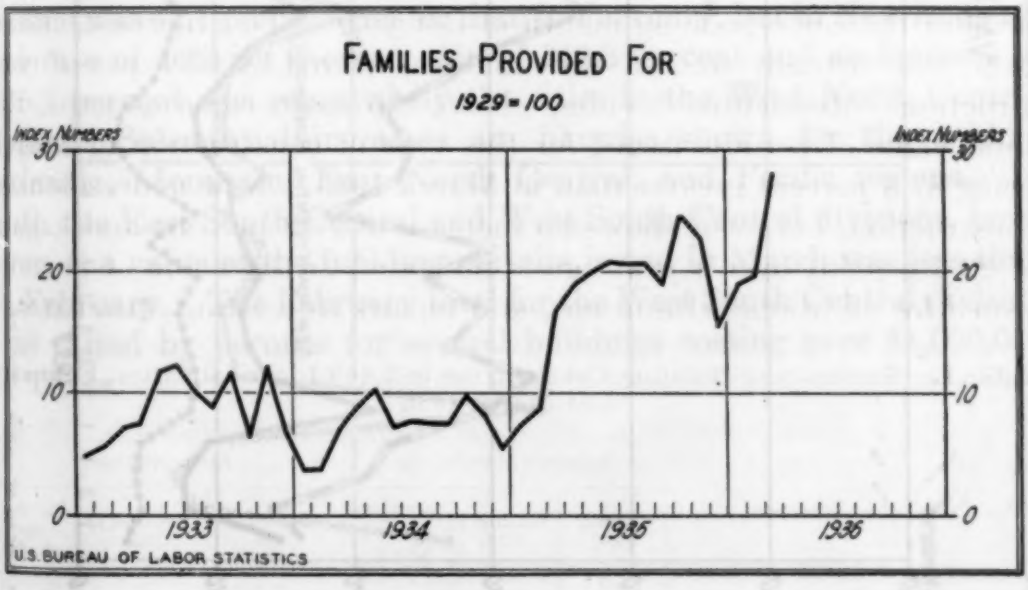
Table 1.—Summary of Building Construction in 1,448 Identical Cities, February and March 1936

Class of construction	Number of buildings			Estimated cost		
	March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change
All construction	47,099	24,723	+90.5	$126,814,602	$86,208,359	+47.1
New residential buildings	9,131	5,549	+64.6	46,346,956	38,943,946	+19.0
New nonresidential buildings	8,162	3,439	+137.3	57,492,625	29,909,028	+92.2
Additions, alterations, and repairs	29,806	15,735	+89.4	22,975,021	17,355,385	+32.4

The comparisons with March 1935 are based on reports received from 751 identical cities having a population of 10,000 or over. Beginning with January 1936, however, the Bureau broadened the scope of its survey of building construction to include all cities having a population of 2,500 or over. For the 3-year period previous to this date the survey covered cities having a population of 10,000 or over, and from 1920 to 1933, the coverage comprised the cities in the population group of 25,000 and over.

These data are received by the Bureau of Labor Statistics direct from local building officials, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where the State departments of labor collect and forward the data to the Bureau. The cost figures shown in this report are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the cities included in the survey are shown in the Bureau's tabulations. The data, however, do show the value of contracts awarded for Federal and State buildings in the cities covered. In March 1936 the value of Federal and State buildings for which contracts were awarded in these cities amounted to $4,464,000; in February 1936, $20,420,000; and, in March 1935, $5,313,000.

Index numbers of indicated expenditures for each of the different types of building construction and of the number of family-dwelling units provided are given in table 2. The monthly trends for the major classes of building construction and for the number of family-dwelling units provided during the period January 1933 to March 1936 are shown graphically by the accompanying charts.



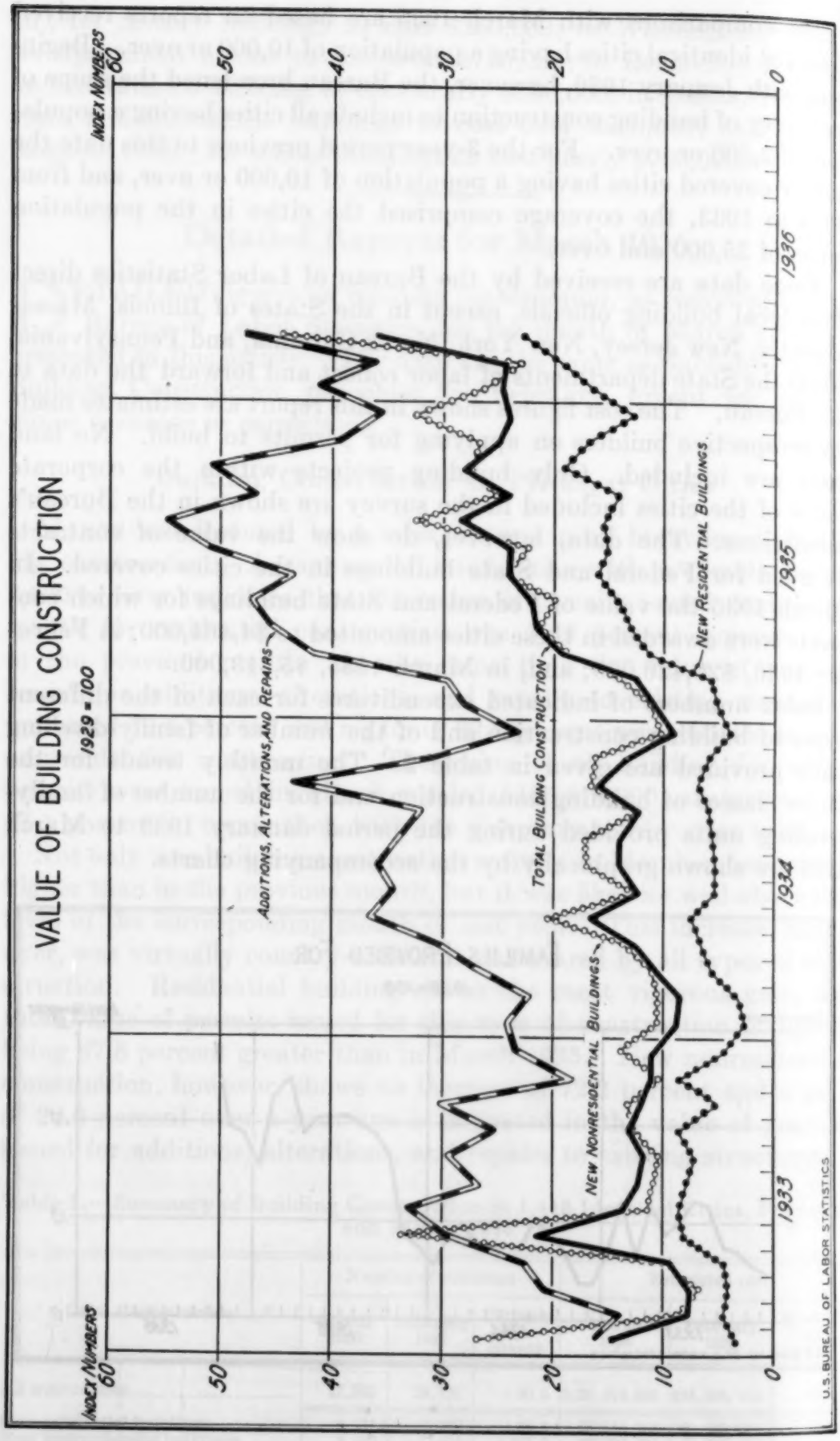

VALUE OF BUILDING CONSTRUCTION
1929 = 100
INDEX NUMBERS
60
50
40
30
20
10
0
1933
1934
1935
1936
ADDITIONS, ALTERATIONS, AND REPAIRS
TOTAL BUILDING CONSTRUCTION
NEW RESIDENTIAL BUILDINGS
NEW NONRESIDENTIAL BUILDINGS
U.S. BUREAU OF LABOR STATISTICS

Table 2.—**Index Numbers of Families Provided for and of Indicated Expenditures for Building Operations**

[Monthly average, 1929=100]

Month	Families provided for	Indicated expenditures for—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total construction
1930					
February	43.0	34.7	51.8	57.5	44.1
March	57.1	47.2	87.1	77.5	66.4
1931					
February	40.3	30.3	43.8	48.6	37.9
March	53.4	40.7	76.4	58.0	57.1
1932					
February	13.0	9.1	16.5	26.7	14.3
March	15.4	10.7	18.1	27.0	15.7
1933					
February	5.6	4.6	8.9	14.2	7.9
March	7.2	4.2	6.9	20.9	7.8
1934					
February	3.8	3.2	10.3	22.2	8.7
March	7.2	5.7	10.9	27.0	10.8
1935					
February	8.5	5.6	13.9	29.7	12.5
March	16.6	11.4	18.6	41.6	19.2
1936					
January	19.0	16.6	26.2	41.0	24.9
February	19.6	19.1	23.1	36.2	24.5
March	28.1	22.7	44.4	47.9	36.0

Comparison With Previous Month

STATISTICS for the country as a whole give no indication of the wide variations in the rate of building activity in different parts of the country. The aggregate value of the building permits issued in March was 47.1 percent greater than in February, but in New England the rate of activity shows a gain of 149.3 percent and an increase of 105.1 percent was reported by the cities in the West North Central region. Substantial increases are likewise shown for the Middle Atlantic, Mountain, East North Central, and Pacific regions. In both the East South Central and West South Central divisions, however, the value of the building permits issued in March was less than in February. The February total for the West South Central division was raised by permits for several buildings costing over $1,000,000 in Texas.

U.S. BUREAU OF LABOR STATISTICS

Table 3.—Estimated Cost of Building Construction in 1,448 Identical Cities, February and March 1936

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change
All divisions	$46,346,956	$38,943,946	+19.0	$57,492,625	$29,909,028	+92.2
New England	2,082,585	562,050	+270.5	3,794,551	929,149	+308.4
Middle Atlantic	13,209,447	12,511,290	+5.6	23,533,154	4,471,274	+426.3
East North Central	8,991,361	11,361,286	−20.9	7,722,111	2,104,461	+266.9
West North Central	2,615,585	553,587	+372.5	2,426,301	2,015,890	+20.4
South Atlantic	5,877,393	5,356,189	+9.7	5,365,122	4,618,061	+16.2
East South Central	751,350	464,829	+61.6	1,283,322	2,494,974	−48.6
West South Central	3,100,742	2,248,095	+37.9	4,955,856	6,918,096	−28.4
Mountain	1,086,443	563,598	+92.8	1,019,572	556,008	+83.4
Pacific	8,632,050	5,323,022	+62.2	7,392,636	5,801,115	+27.4

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction			Number of cities
	March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change	
All divisions	$22,975,021	$17,355,385	+32.4	$126,814,602	$86,208,359	+47.1	1,448
New England	2,222,391	1,757,776	+26.4	8,099,527	3,248,975	+149.3	129
Middle Atlantic	6,735,724	6,232,172	+8.1	43,478,325	23,214,736	+87.3	345
East North Central	4,481,490	2,486,519	+80.2	21,194,962	15,952,266	+32.9	331
West North Central	1,389,466	566,112	+145.4	6,431,352	3,135,589	+105.1	131
South Atlantic	2,331,518	1,585,062	+47.1	13,574,033	11,559,312	+17.4	155
East South Central	1,082,130	617,157	+75.3	3,116,802	3,576,960	−12.9	65
West South Central	986,123	807,827	+22.1	9,042,721	9,974,018	−9.4	89
Mountain	661,128	435,971	+51.6	2,767,143	1,555,577	+77.9	59
Pacific	3,085,051	2,866,789	+7.6	19,109,737	13,990,926	+36.6	144

The East North Central was the only geographic division registering a decrease in residential construction in March. In February, permits were issued for two large developments of the Suburban Resettlement Division in this section. Seven of the nine geographic divisions showed gains in the value of new nonresidential buildings. In three divisions the increase amounted to more than 250 percent. All nine geographic divisions registered gains in the value of additions, alterations, and repairs to existing buildings.

Living quarters will be provided for 11,509 families in the new dwellings for which permits were issued during March. This is a gain of 43.4 percent in comparison with the preceding month. The gain was due to an increase in one- and two-family dwellings. The number of family-dwelling units provided in apartment houses declined 9.5 percent. (See table 4.)

Table 4.—Estimated Cost and Number of Family Dwelling Units Provided in 1,448 Identical Cities, February and March 1936

Type of dwelling	Number of families provided for			Estimated cost		
	March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change
All types	11,509	8,027	+43.4	$45,853,630	$38,295,391	+19.7
1-family	8,522	5,233	+62.9	37,993,265	29,459,532	+29.0
2-family [1]	738	308	+139.6	2,052,245	739,816	+177.4
Multifamily [2]	2,249	2,486	−9.5	5,808,120	8,096,043	−28.3

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Analysis by Size of Cities

BUILDING construction not only varies in different parts of the country, but there are also wide variations in the rate of activity in cities of different sizes. In March, increases were reported by six of the seven population groups. The increases ranged from 3.3 percent in the cities having a population of 500,000 and over to nearly 900 percent in cities having a population of between 2,500 and 5,000. The extraordinary gain in the smaller cities was caused by a large steel mill construction in a small town near Pittsburgh, Pa.

The cities having a population of between 5,000 and 10,000 showed a decrease. This decrease was due to a decline in new residential buildings, the February figures having included a large suburban resettlement development in Bound Brook, N. J.

The largest increase in residential construction was registered in the cities having the smallest population, with large increases also occurring in the group having a population between 10,000 and 25,000, and the group having a population of between 50,000 and 100,000. The value of new nonresidential buildings showed gains in all population groups. Increases in expenditures for additions, alterations, and repairs to existing structures are shown for five of the seven groups.

The estimated cost of building construction in 1,448 cities having a population of 2,500 or over is shown, by population groups, for the months of February and March 1936, in table 5.

Table 5.—Estimated Cost of Building Construction, by Population Groups February and March 1936

Population group	Number of cities	Total construction			New residential buildings		
		March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change
Total, all groups	1,448	$126,814,602	$86,208,359	+47.1	$46,346,956	$38,943,946	+19.0
500,000 and over	14	34,823,910	33,725,623	+3.3	15,689,624	18,613,215	−15.7
100,000 and under 500,000	76	26,300,456	20,163,895	+30.4	8,209,345	4,936,718	+66.3
50,000 and under 100,000	92	11,973,745	7,741,300	+54.7	3,849,149	1,806,885	+113.0
25,000 and under 50,000	154	8,917,805	5,945,006	+50.0	3,443,458	2,026,301	+69.9
10,000 and under 25,000	417	15,725,433	5,954,827	+164.1	6,604,752	2,248,539	+193.7
5,000 and under 10,000	332	7,652,409	10,493,094	−27.1	4,266,976	8,494,928	−49.1
2,500 and under 5,000	363	21,420,844	2,184,614	+880.5	4,283,652	817,360	+424.8

Population group	New nonresidential buildings			Additions, alterations, and repairs		
	March 1936	February 1936	Percentage change	March 1936	February 1936	Percentage change
Total, all groups	$57,492,625	$29,909,028	+92.2	$22,975,021	$17,355,385	+32.4
500,000 and over	10,401,735	7,955,425	+30.8	8,732,551	7,156,983	+22.0
100,000 and under 500,000	12,466,703	11,644,252	+7.1	5,624,408	3,582,925	+57.0
50,000 and under 100,000	5,207,556	3,647,143	+42.8	2,917,040	2,287,272	+27.5
25,000 and under 50,000	3,123,523	2,122,716	+47.1	2,350,824	1,795,989	+30.9
10,000 and under 25,000	6,816,551	2,343,203	+190.9	2,304,130	1,363,085	+69.0
5,000 and under 10,000	2,642,655	1,222,257	+116.2	742,778	775,909	−4.3
2,500 and under 5,000	16,833,902	974,032	+1,628.3	303,290	393,222	−22.9

The number of family-dwelling units provided in the 1,448 identical cities is given in table 6, by population groups.

Table 6.—Number of Families Provided for by Different Types of Dwellings in 1,448 Identical Cities, February and March 1936, by Population Groups

Population group	Number of cities	Total number of families provided for		1-family dwellings		2-family dwellings [1]		Multifamily dwellings [2]	
		March 1936	February 1936	March 1936	February 1936	March 1936	February 1936	March 1936	February 1936
Total, all groups	1,448	11,509	8,027	8,522	5,233	738	308	2,249	2,486
500,000 and over	14	4,266	3,800	2,449	1,715	202	89	1,615	1,996
100,000 and under 500,000	76	2,136	1,374	1,817	938	187	101	132	335
50,000 and under 100,000	92	907	428	769	370	86	43	52	15
25,000 and under 50,000	154	926	516	714	459	93	13	119	44
10,000 and under 25,000	417	1,521	592	1,313	503	72	29	136	60
5,000 and under 10,000	332	981	1,086	761	1,041	65	17	155	28
2,500 and under 5,000	363	772	231	699	207	33	16	40	8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparisons With a Year Ago

ALL types of construction in nearly all geographic divisions in March show increases in comparison with the same month of last year. (See table 7.) The increase in residential building amounted

to nearly 90 percent with five geographic divisions showing gains of more than 100 percent. Total construction showed an increase of 62.7 percent, with three divisions registering gains of more than 100 percent.

Table 7.—Estimated Cost of Building Construction in 751 Identical Cities, March 1935 and March 1936

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	March 1936	March 1935	Percentage change	March 1936	March 1935	Percentage change
All divisions	$37,915,983	$20,191,844	+87.8	$38,426,878	$22,314,414	+72.2
New England	2,184,485	1,134,550	+92.5	3,734,876	1,018,936	+266.5
Middle Atlantic	9,960,535	6,932,784	+43.7	8,446,112	7,620,356	+10.8
East North Central	7,312,618	1,797,695	+306.8	7,262,934	4,069,738	+78.5
West North Central	2,026,780	1,163,164	+74.2	1,362,255	1,793,782	−24.1
South Atlantic	4,461,250	4,682,624	−4.7	4,798,712	746,805	+542.6
East South Central	663,770	299,475	+121.6	1,072,282	1,312,901	−18.3
West South Central	2,852,462	1,013,390	+181.5	4,893,896	360,040	+1,259.3
Mountain	951,553	295,108	+222.4	719,977	784,621	−8.2
Pacific	7,502,530	2,873,054	+161.1	6,135,834	4,607,235	+33.2

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction			Number of cities
	March 1936	March 1935	Percentage change	March 1936	March 1935	Percentage change	
All divisions	$21,959,320	$17,911,240	+22.6	$98,302,181	$60,417,498	+62.7	751
New England	2,236,046	1,504,901	+48.6	8,155,407	3,658,387	+122.9	106
Middle Atlantic	6,505,300	5,906,187	+10.1	24,911,947	20,459,327	+21.8	168
East North Central	4,271,682	3,335,362	+28.1	18,847,234	9,202,795	+104.8	178
West North Central	1,324,863	1,041,353	+27.2	4,713,898	3,998,299	+17.9	66
South Atlantic	2,218,334	2,134,701	+3.9	11,478,296	7,564,130	+51.7	74
East South Central	1,046,576	484,993	+115.8	2,782,628	2,097,369	+32.7	32
West South Central	922,609	814,086	+13.3	8,668,967	2,187,516	+296.3	48
Mountain	565,764	338,012	+67.4	2,237,294	1,417,741	+57.8	21
Pacific	2,868,146	2,351,645	+22.0	16,506,510	9,831,934	+67.9	58

New nonresidential construction showed wider variations, six geographic divisions registering increases and three decreases. In the West South Central States the value of nonresidential buildings for which permits were issued in March was more than 12 times as great as in February

A comparison of the number of family-dwelling units and the estimated cost of the various types of housekeeping dwellings for which permits were issued in March 1936 with March 1935 is given in table 8.

Table 8.—Estimated Cost and Number of Family Dwelling Units Provided in 751 Identical Cities, March 1935 and March 1936

Type of dwelling	Number of families provided for			Estimated cost		
	March 1936	March 1935	Percentage change	March 1936	March 1935	Percentage change
All types	9,775	5,712	+71.1	$37,789,283	$19,801,644	+90.8
1-family	7,081	3,223	+119.7	30,565,838	12,363,727	+147.2
2-family [1]	640	327	+95.7	1,794,145	891,320	+101.3
Multifamily [2]	2,054	2,162	−5.0	5,429,300	6,546,597	−17.1

[1] Includes 1- and 2-family dwellings with stores. [2] Includes multifamily dwellings with stores.

Sharp gains were registered in the number of family-dwelling units provided in one- and two-family dwellings. Family dwelling units provided in apartment houses, however, showed a slight decrease.

Indicated expenditures for building construction during the first quarter of 1936 were more than 80 percent greater than during the corresponding period of 1935. Over the same period the estimated cost of new residential buildings showed a gain of nearly 150 percent. These facts are shown in table 9.

Table 9.—Estimated Cost of Building Construction, First Quarter of 1935 and 1936, by Class of Construction

Class of construction	First quarter of—		Percentage change
	1936	1935	
All construction	$249,940,000	$134,927,000	+85.2
New residential buildings	97,718,000	39,499,000	+147.4
New nonresidential buildings	95,545,000	52,349,000	+82.5
Additions, alterations, and repairs	56,677,000	43,079,000	+31.6

Construction From Public Funds

THE value of Federal construction work for which contracts were awarded or force-account work started showed a decided decrease comparing March with February. The decreases for the most part were shown in building and naval construction. Pronounced increases occurred in the value of awards for road construction.

Information concerning the value of contracts awarded and force-account work approved during February and March 1936 for projects financed from the Public Works Administration fund, from The Works Program fund, and from regular governmental appropriations are shown in table 11, by type of construction.

Table 11.—Value of Contracts Awarded and Force-Account Work Started on Projects Financed from Federal Funds, February and March, 1936 [1]

Type of project	Total		The Works Program [2]		Regular governmental appropriations	
	March 1936	February 1936	March 1936	February 1936	March 1936	February 1936
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
All types	[3] 104,485,651	[4] [5] 153,070,385	35,282,440	[5] 42,493,573	16,941,080	49,206,748
Building	[3] 31,055,622	[4] [5] 53,881,312	87,512	[5] 10,572,026	3,467,475	2,707,192
Electrification	355,376	[5] 1,363,392	142,250	927,700	154,953	0
Heavy engineering	0	2,000	0	0	----------	----------
Hydroelectric power plants	14,800	18,000	0	0	----------	----------
Naval vessels	1,285,200	39,058,281	----------	----------	1,285,200	39,058,281
Plant, crop and live-stock control	50,000	306,740	50,000	306,740	----------	----------
Professional, technical and clerical projects	8,736,146	[5] 1,986,798	8,736,146	[5] 1,986,798	----------	----------
Public roads:						
Grade-crossing elimination	8,438,555	[5] 8,117,803	8,128,098	[5] 8,117,803	----------	----------
Roads	28,761,623	[5] 21,896,801	17,540,928	[5] 14,593,647	9,254,475	6,504,982
Railroad construction and repair	500,500	265,876	----------	----------	----------	----------
Reclamation	638,099	[5] 534,744	435,583	[5] 252,003	154,000	144,900
River, harbor, and flood control	2,559,292	2,622,979	56,720	846,000	2,234,714	615,620
Streets and roads [6]	4,126,502	[5] 3,329,257	0	467,500	105,027	24,702
Water and sewerage systems	14,755,333	[5] 14,322,930	0	129,676	113,628	1,850
Miscellaneous	3,208,603	5,363,472	105,203	4,293,680	171,608	149,221

See footnotes at end of table.

Table 11.—Value of Contracts Awarded and Force-Account Work Started no Projects Financed from Federal Funds, February and March, 1936—Con.

Type of project	Public Works Administration					
	Federal		Non-Federal			
			N. I. R. A.		E. R. A. A. 1935 [7]	
	March 1936	February 1936	March 1936	February 1936	March 1936	February 1936
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
All types	2,521,252	1,750,192	16,266,090	14,189,639	[3] 33,474,789	[4] [5] 45,430,233
Building	102,376	585,949	4,323,425	9,542,948	[3] 23,074,834	[4] [5] 30,473,197
Electrification					58,173	[5] 435,692
Heavy engineering					0	2,000
Hydroelectric power plants					14,800	18,000
Public roads:						
Grade-crossing elimination					310,457	0
Roads	1,966,220	798,172				
Railroad construction and repair			500,500	265,876		
Reclamation	41,744	83,408			6,772	54,433
River, harbor, and flood control	0	48,281			267,857	1,113,078
Streets and roads [6]	493,363	201,804	1,330,347	564,715	2,287,765	[5] 2,070,536
Water and sewerage systems	4,975	16,550	7,271,309	3,331,828	7,365,421	[5] 10,843,026
Miscellaneous	2,574	16,028	2,840,509	484,272	88,709	420,271

[1] Preliminary, subject to revision.
[2] Does not include data for that part of The Works Program operated by the Works Progress Administration.
[3] Includes $141,861 low-cost housing projects (housing division, P. W. A.).
[4] Includes $574,880 low-cost housing projects (housing division, P. W. A.).
[5] Revised.
[6] Other than those reported by the Bureau of Public Roads.
[7] Not included in The Works Program.

Among the more important construction projects to be financed wholly or partially from Federal funds during March were: Irrigation in Hidalgo County, Tex., to cost over $1,800,000; waterworks in San Francisco, Calif., to cost over $1,770,000; water and sewerage projects in Chicago, Ill., to cost over $3,600,000; and for a sewage-treatment plant at Elmira, N. Y., to cost $360,000.

The value of public-building and highway-construction awards financed wholly by appropriations from State funds, as reported by the various State governments, for March 1935 and February and March 1936, is shown, by geographic divisions, in table 12.

Table 12.—Value of Public-Building and Highway-Construction Awards Financed Wholly by State Funds

Geographic division	Value of awards for public buildings			Value of awards for highway construction		
	March 1936	February 1936	March 1935	March 1936	February 1936	March 1935
All divisions	$2,645,168	$1,685,899	$275,704	$5,126,403	$3,308,375	$2,789,966
New England	0	1,435	13,208	371,223	46,824	45,975
Middle Atlantic	114,030	755,128	77,370	662,201	561,926	0
East North Central	93,246	65,546	111,414	413,623	102,932	634,209
West North Central	5,290	16,277	0	22,892	178,561	317,251
South Atlantic	102,743	2,513	70,562	216,776	94,198	290,834
East South Central	0	11,000	0	0	0	25,366
West South Central	1,628,707	54,000	950	1,113,698	929,223	436,690
Mountain	1,152	30,000	0	12,704	0	15,284
Pacific	700,000	750,000	2,200	2,313,286	1,394,711	1,024,357

Awards for public buildings were greater in March of this year than in either the preceding month or the corresponding month of last year. Even more conspicuous are the increases shown in the value of highway construction.

The number and cost of buildings for which permits were issued during the calendar year 1935 in the metropolitan areas of 59 of the largest cities of the United States is shown in table 13. These data were collected from cities, towns, and townships having a population of 1,000 and over, and do not include building in unincorporated areas.

Table 13.—Estimated Cost of Building Construction in 59 Metropolitan Districts, Calendar Year 1935, by District

Metropolitan district	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
		Dollars		*Dollars*		*Dollars*		*Dollars*
Akron, Ohio	129	560,927	703	520,120	843	641,594	1,675	1,722,641
Albany-Schenectady-Troy, N. Y.	259	1,699,995	440	1,534,147	3,675	2,121,244	4,374	5,355,386
Atlanta, Ga.	361	4,997,811	337	577,018	1,643	1,098,186	2,341	6,673,015
Baltimore, Md.	1,013	3,384,324	889	3,240,262	7,049	4,302,401	8,951	10,926,987
Birmingham, Ala.	125	389,313	211	980,006	3,992	1,465,375	4,328	2,834,694
Boston, Mass.	1,648	10,522,866	2,933	13,203,765	12,788	11,345,958	17,369	35,072,589
Bridgeport, Conn.	255	1,179,975	435	505,779	739	701,006	1,429	2,386,760
Buffalo-Niagara, N. Y.	318	1,306,073	1,024	3,370,647	2,507	1,531,203	3,849	6,207,923
Canton, Ohio	40	174,575	247	141,560	664	320,171	951	636,306
Chicago, Ill.	987	7,468,403	2,509	14,382,679	7,669	8,824,271	11,165	30,675,353
Cincinnati, Ohio	757	5,277,270	1,097	5,283,053	3,940	2,070,157	5,794	12,630,480
Cleveland, Ohio	769	13,090,904	1,205	1,827,646	3,061	2,473,720	5,035	17,392,270
Columbus, Ohio	149	1,123,450	492	798,775	717	1,390,419	1,358	3,312,644
Dallas, Tex.	1,056	3,256,157	472	2,567,023	2,337	1,233,278	3,865	7,056,458
Dayton, Ohio	55	420,450	298	599,437	482	493,036	835	1,512,923
Denver, Colo.	472	2,433,950	703	1,621,434	2,397	1,587,492	3,572	5,642,876
Detroit, Mich.	2,084	12,969,441	4,015	10,266,667	7,383	5,843,052	13,482	29,079,160
Fort Wayne, Ind.	68	440,870	237	406,609	784	400,385	1,089	1,247,864
Grand Rapids, Mich.	26	123,900	259	211,550	747	300,510	1,032	635,960
Hartford, Conn.	575	3,820,390	789	3,062,626	3,591	2,606,906	4,955	9,489,922
Houston, Tex.	1,244	4,987,000	263	1,841,351	1,661	613,785	3,168	7,442,136
Kansas City, Kans.-Kansas City, Mo.	492	1,839,950	317	3,105,135	705	1,001,444	1,514	5,946,529
Los Angeles, Calif.	11,531	28,528,788	8,216	29,799,248	32,836	16,796,464	52,583	75,124,500
Lowell-Lawrence, Mass.	100	254,620	364	751,155	854	639,038	1,318	1,644,813
Memphis, Tenn.	169	394,564	654	1,392,535	2,211	1,352,320	3,034	3,139,419
Miami, Fla.	1,350	10,427,374	694	2,092,318	5,608	2,789,139	7,652	15,308,831
Milwaukee, Wis.	924	4,976,527	1,311	3,609,190	3,601	2,679,286	5,836	11,265,003
Minneapolis-St. Paul, Minn.	876	3,876,593	1,633	1,755,891	4,611	3,083,887	7,120	8,716,371
New Haven, Conn.	146	827,700	408	546,466	969	738,478	1,523	2,112,644
New Orleans, La.	164	555,000	83	2,089,329	785	1,330,619	1,032	3,974,948
New York-northeastern New Jersey	7,760	81,618,494	8,484	67,248,697	40,306	52,632,340	56,550	201,499,531
Norfolk, Va.	501	1,287,985	545	1,999,993	2,308	1,448,710	3,354	4,736,688
Oklahoma City, Okla.	499	1,316,090	253	1,600,145	580	370,922	1,332	3,287,157
Peoria, Ill.	115	382,785	243	1,209,820	467	386,400	825	1,979,005
Philadelphia, Pa.	1,423	7,816,706	1,239	5,352,704	5,342	6,294,117	8,004	19,463,527
Pittsburgh, Pa.	479	3,049,283	673	3,382,515	2,888	2,901,705	4,040	9,333,503
Portland, Oreg.	259	1,043,040	876	1,492,565	2,709	1,382,612	3,844	3,918,217
Providence, R. I.	606	2,242,347	1,950	1,911,809	6,056	3,318,649	8,612	7,472,805
Reading, Pa.	8	74,300	71	74,900	638	289,420	717	438,620
Richmond, Va.	358	1,585,689	381	867,243	1,204	805,912	1,943	3,258,844
Rochester, N. Y.	134	703,620	617	1,808,093	1,014	852,237	1,765	3,363,950
St. Louis, Mo.	1,947	8,596,667	1,902	10,524,567	2,505	2,872,331	6,354	21,993,565
Salt Lake City, Utah	163	624,422	259	796,765	1,431	712,080	1,853	2,133,267
San Antonio, Tex.	404	985,801	420	3,941,577	5,352	1,371,735	6,176	6,299,113
San Diego, Calif.	821	2,716,064	684	2,063,911	2,102	1,183,279	3,607	5,963,254
San Francisco-Oakland, Calif.	2,097	9,709,898	1,548	14,027,005	8,886	5,965,026	12,531	29,701,929
Scranton-Wilkes-Barre, Pa.	52	283,100	278	525,480	1,129	847,656	1,459	1,656,236
Seattle, Wash.	250	895,125	750	1,825,782	2,478	1,111,895	3,478	3,832,802
Springfield-Holyoke, Mass.	148	804,350	516	1,148,327	753	918,072	1,417	2,870,749
Syracuse, N. Y.	61	314,960	221	1,175,963	536	583,471	818	2,074,394
Tacoma, Wash.	65	124,700	211	259,468	812	402,637	1,088	786,805
Tampa-St. Petersburg, Fla.	283	669,700	427	705,370	3,433	1,160,602	4,143	2,535,672
Toledo, Ohio	64	398,000	454	1,007,793	567	482,869	1,085	1,888,662
Utica, N. Y.	19	81,500	77	98,999	116	132,115	212	312,614
Washington, D. C.	4,186	27,761,660	2,113	25,266,257	4,083	8,342,687	10,382	61,370,604
Waterbury, Conn.	112	416,475	206	254,258	293	198,688	611	869,418
Wilmington, Del.	106	527,310	110	1,139,191	872	859,077	1,088	2,525,578
Worcester, Mass.	136	610,185	286	1,050,809	1,177	733,819	1,599	2,394,813
Youngstown, Ohio	58	228,105	374	696,540	1,199	544,198	1,631	1,468,843

RETAIL PRICES

Food Prices in April 1936

RETAIL food costs in the larger cities of the United States rose 1.0 percent from March 24 to April 21. The more significant changes during the month conformed closely with the usual movement of prices at this season of the year. There was a sharp rise in fresh-vegetable costs and a moderate advance for meats. These increases were partially offset by decreases in butter and egg prices.

The composite index stood at 79.7 percent of the 1923–25 average on April 21. This is 2.7 percent below the level for the corresponding date last year. Comparable indexes of food costs for April 15 of earlier years were 60.1 in 1933 and 100.8 in 1929. On the basis of these data, food costs have risen 32.6 percent since 1933. More than double this increase, however, would be necessary to raise the index to its 1929 level.

The cost of cereals and bakery products declined 0.4 percent during April. Wheat flour, with a drop of 1.4 percent, made the most significant price change. Price reductions for this article were most pronounced in the eastern cities. Prices of white bread showed a net decline of 0.2 percent as a result of decreases in 13 of the 51 cities and advances in 5 of the cities. Substantial decreases were reported for St. Paul and Minneapolis, and for several cities in the South Atlantic area. An advance of 1.2 cents per loaf in Dallas partially offset the sharp reductions caused by the "bread war" of the previous month. Whole-wheat and rye bread each showed a price decrease of 1.2 percent. Corn-meal prices fell 0.7 percent and macaroni rose 0.7 percent.

Meat costs advanced 1.0 percent. Price increases were reported for each of the fresh-meat items. The combined cost of the various cuts of beef rose 0.7 percent, with round steak (1.4 percent) and sirloin steak (1.0 percent) making the largest advances. The 0.6-percent rise in the cost of pork was largely the result of price increases for the two fresh-pork items, loin roast (2.5 percent) and chops (1.6 percent). Smoked-ham prices fell 0.8 percent for sliced and 0.7 percent for whole. All lamb prices rose sharply, the advances ranging from 2.5 percent for breast to 4.6 percent for rib chops. The price of roasting chickens increased 1.7 percent. Canned-salmon prices advanced 1.3 percent for pink and 1.0 percent for red.

A decline of 0.9 percent in the cost of dairy products was due chiefly to the 3.0 percent drop in butter prices. Lower prices for butter were reported by 46 cities. The price of cheese fell 0.9 percent. Fresh milk rose 0.2 percent, largely as a result of an increase of 1 cent a quart in Seattle.

The price of eggs on April 21 was 3.5 percent below the level of March 24. The seasonal low came in the first half of April. Advances during the latter half of the month, however, were not sufficient to offset the earlier declines. Thirty-one cities, mainly in the northern sections of the country, reported net decreases in egg prices for April. Price changes ranged from a decline of 16.5 percent in Butte to an increase of 13.5 percent in Charleston, S. C.

Fruit and vegetable costs rose 6.5 percent, due entirely to a 7.5 percent advance in the cost of the fresh items of the group. Substantial increases in fresh-vegetable prices are to be expected at this season of the year. This is particularly true of white potatoes which rose 18.1 percent largely as a result of a shift in the basis or price quotations from old- to new-crop potatoes. From the standpoint of its effect upon the food-cost index, this increase was the most significant price change for the month. Advances in potato prices, ranging from 5.0 percent in Indianapolis to 32.1 percent in New York, were reported by 47 of the 51 cities. Apple prices rose 2.8 percent. Other important price increases in this subgroup were reported for sweetpotatoes (10.2 percent) and cabbage (10.0 percent). Banana prices dropped 4.5 percent. The cost of canned fruits and vegetables fell 0.1 percent. Price changes for this subgroup were comparatively small, ranging from a decrease of 0.6 percent for canned peaches to an increase of 0.7 percent for tomato soup. The 0.5-percent decline in the cost of dried fruits and vegetables resulted from the combined effect of decreases in the prices of prunes (1.9 percent), black-eyed peas (1.8 percent), and navy beans (0.9 percent), and increases for lima beans (1.7 percent), raisins (1.1 percent), and dried peaches (1.0 percent).

Beverage and chocolate costs decreased 0.1 percent. Coffee prices fell 0.2 percent. Unsweetened chocolate dropped 0.6 percent and tea prices rose 0.6 percent.

The index for fats and oils declined 0.2 percent. The price of lard advanced 0.1 percent, the first increase for any month since last September. Price reductions of 1.9 percent were reported for peanut butter and 0.8 percent for vegetable shortening.

The combined cost of sugar and sweets rose 0.2 percent. Sugar prices advanced 0.3 percent.

Indexes of retail food costs by major commodity groups in April and March 1936 are presented in table 1. This table shows also the comparative level of costs in April 1929 and other recent years.

Table 1.—Indexes of Retail Food Costs in 51 Cities Combined,[1] by Commodity Groups

April and March 1936 and April 1935, 1933, and 1929

[1923–25=100]

Commodity group	1936				1935		1933	1929
	Apr. 21	Apr. 7	Mar. 24	Mar. 10	Apr. 23	Apr. 9	Apr. 15	Apr. 15
All foods	79.7	78.9	79.0	79.5	81.9	81.2	60.1	100.8
Cereals and bakery products	91.2	91.3	91.6	91.7	92.2	92.3	69.8	98.2
Meats	94.1	93.7	93.2	93.3	96.5	95.1	63.4	120.7
Dairy products	77.8	77.8	78.5	79.5	79.3	80.3	60.4	102.9
Eggs	57.4	56.9	59.5	66.9	61.8	60.7	40.7	76.4
Fruits and vegetables	66.5	63.3	62.4	61.7	68.7	66.5	54.4	87.3
Fresh	65.8	62.2	61.2	60.5	67.6	65.1	54.0	85.1
Canned	78.3	78.4	78.3	78.5	84.2	84.4	65.2	97.3
Dried	57.7	57.8	58.0	57.9	63.1	62.7	48.2	101.7
Beverages and chocolate	67.5	67.7	67.6	67.6	71.3	71.6	68.4	111.0
Fats and oils	75.2	75.1	75.3	75.7	81.0	80.6	44.7	93.7
Sugar and sweets	63.8	63.8	63.7	63.7	63.0	62.7	58.1	72.8

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights.

Table 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined [1]

April and March 1936 and April 1935

[* Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article		1936				1935	
		Apr. 21	Apr. 7	Mar. 24	Mar. 10	Apr. 23	Apr. 9
Cereals and bakery products:							
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
*Flour, wheat	pound	4.7	4.7	4.8	4.8	5.0	5.0
*Macaroni	do	14.9	14.7	14.8	14.8	15.7	15.7
*Wheat cereal	28-ounce package	24.3	24.2	24.0	24.0	23.8	23.9
*Corn flakes	8-ounce package	8.1	8.1	8.1	8.1	8.3	8.4
*Corn meal	pound	4.8	4.9	4.9	4.9	5.1	5.1
Hominy grits	24-ounce package	9.0	9.0	9.0	9.0	9.3	9.3
*Rice	pound	8.5	8.5	8.5	8.5	8.3	8.3
*Rolled oats	do	7.4	7.4	7.4	7.4	7.5	7.5
Bakery products:							
*Bread, white	do	8.2	8.2	8.2	8.3	8.3	8.3
Bread, whole wheat	do	9.2	9.3	9.3	9.3	9.2	9.2
Bread, rye	do	9.0	9.0	9.1	9.1	8.8	8.8
Cake	do	24.8	24.8	24.8	24.4	22.9	22.7
Soda crackers	do	18.1	18.1	18.2	18.2	16.8	16.8
Meats:							
Beef:							
*Sirloin steak	do	37.0	36.7	36.6	36.3	41.9	40.8
*Round steak	do	33.4	33.3	32.9	32.9	37.7	36.9
*Rib roast	do	29.4	29.4	29.2	29.4	32.6	32.0
*Chuck roast	do	22.4	22.5	22.4	22.5	25.5	25.0
*Plate	do	15.8	15.9	15.8	15.9	17.4	17.1
Liver	do	25.4	25.5	25.3	25.4	23.5	23.2
Veal:							
Cutlets	do	39.9	40.1	39.7	40.6	38.8	38.5
Pork:							
*Chops	do	33.7	33.2	33.1	32.1	34.4	33.8
Loin roast	do	28.2	27.7	27.5	26.8	28.4	28.0
*Bacon, sliced	do	40.9	40.9	40.7	41.2	38.7	38.5
Bacon, strip	do	35.7	35.4	35.7	35.8	33.3	33.0
*Ham, sliced	do	46.8	46.8	47.2	47.2	43.3	43.6
Ham, whole	do	30.6	30.6	30.8	30.8	26.5	26.6
Salt pork	do	24.6	24.5	24.6	24.9	25.2	24.8
Lamb:							
Breast	do	13.0	12.9	12.7	12.8	12.7	12.5
Chuck	do	22.4	21.6	21.6	21.5	20.9	20.8
*Leg	do	28.9	28.1	27.9	27.7	27.5	27.4
Rib chops	do	35.6	34.6	34.0	33.9	33.3	34.1

[1] Prices for individual cities are combined with the use of population weights.

Table 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined—Continued

April and March 1936 and April 1935

[* Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article	1936				1935	
	Apr. 21	Apr. 7	Mar. 24	Mar. 10	Apr. 23	Apr. 9
Meats—Continued.						
Poultry:	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
*Roasting chickens, pound	33.0	32.8	32.4	32.6	31.3	30.4
Fish, canned:						
Salmon, pink, 16-ounce can	13.1	13.0	13.0	13.1	12.9	12.9
*Salmon, red, do	25.5	25.3	25.3	25.3	20.6	20.7
Dairy products:						
*Butter, pound	37.5	37.6	38.7	40.1	39.4	41.0
*Cheese, do	26.8	26.8	27.0	27.1	26.9	27.1
Cream, ½ pint	14.9	14.9	14.9	14.9	14.9	14.9
Milk, fresh (delivered and store), quart	11.6	11.6	11.6	11.6		
*Milk, fresh (delivered), do	11.8	11.8	11.8	11.8	11.8	11.8
*Milk, evaporated, 14½-ounce can	7.4	7.4	7.4	7.4	7.2	7.2
*Eggs, dozen	29.9	29.6	31.0	34.8	32.2	31.7
Fruits and vegetables:						
Fresh:						
Apples, pound	5.5	5.4	5.4	5.4	6.2	5.9
*Bananas, do	6.1	6.3	6.4	6.4	6.2	6.2
Lemons, dozen	28.4	28.4	29.2	28.6	21.1	21.0
*Oranges, do	29.6	29.3	29.7	30.9	32.8	31.5
Beans, green, pound	15.3	17.1	15.4	13.4	13.1	12.5
*Cabbage, do	4.3	3.9	3.9	3.8	8.3	8.8
Carrots, bunch	5.3	5.4	5.5	5.6	6.1	6.1
Celery, stalk	9.8	9.7	9.4	9.4	10.5	10.2
Lettuce, head	8.0	7.7	7.9	7.9	9.2	9.2
*Onions, pound	4.0	3.8	3.9	4.1	8.2	8.2
*Potatoes, do	2.9	2.6	2.5	2.4	2.0	1.8
Spinach, do	6.9	6.8	7.1	6.9	9.8	9.0
Sweet potatoes, do	4.1	3.8	3.7	3.7	4.2	4.2
Canned:						
Peaches, no. 2½ can	17.7	17.7	17.8	17.9	19.4	19.3
Pears, do	22.2	22.2	22.2	22.3	22.8	22.7
Pineapples, do	22.3	22.3	22.3	22.3	22.6	22.5
Asparagus, no. 2 can	26.0	26.0	55.9	25.9	25.0	24.8
Beans, green, do	11.4	11.4	11.4	11.4	11.9	11.9
*Beans with pork, 16-oz. can	7.1	7.1	7.0	7.0	6.9	6.9
*Corn, no. 2 can	11.2	11.3	11.3	11.3	12.8	12.9
*Peas, do	15.8	15.9	15.9	15.9	17.4	17.5
*Tomatoes, do	9.3	9.2	9.3	9.3	10.5	10.5
Tomato soup, 10½-oz. can	8.1	8.0	8.0	8.0	8.1	8.0
Dried:						
Peaches, pound	17.2	17.1	17.0	17.0	17.0	17.0
*Prunes, do	9.5	9.5	9.7	9.7	11.5	11.5
*Raisins, 15-oz. package	9.7	9.7	9.6	9.5	9.8	9.8
Black-eyed peas, pound	8.8	8.8	8.9	8.8	8.6	8.6
Lima beans, do	10.5	10.5	10.4	10.2	10.0	10.1
*Navy beans, do	5.6	5.6	5.6	5.6	6.3	6.2
Beverages and chocolate:						
*Coffee, pound	24.3	24.4	24.4	24.4	26.2	26.3
*Tea, do	67.8	67.8	67.5	67.3	68.5	68.7
Cocoa, 8-oz. can	10.7	10.7	10.7	10.7	11.1	11.1
Chocolate, 8-oz. package	16.5	16.5	16.6	16.7	21.8	21.7
Fats and oils:						
*Lard, pound	16.1	16.0	16.1	16.2	18.7	18.7
Lard compound, do	14.9	14.9	14.8	15.0	16.3	16.4
*Vegetable shortening, do	21.4	21.4	21.6	21.6	21.7	21.2
Salad oil, pint	24.7	24.7	24.7	24.7	24.4	24.3
Mayonnaise, ½ pint	17.0	17.0	17.0	17.0	16.7	16.7
*Oleomargarine, pound	18.5	18.5	18.5	18.5	19.2	19.1
Peanut butter, do	19.0	19.1	19.3	19.5	21.6	21.3
Sugar and sweets:						
*Sugar, do	5.5	5.5	5.5	5.5	5.4	5.4
Corn sirup, 24-oz. can	13.6	13.6	13.6	13.6	13.7	13.7
Molasses, 18-oz. can	14.4	14.3	14.3	14.3	14.0	14.1
Strawberry preserves, pound	20.3	20.2	20.3	20.3	20.4	20.5

The price of 45 of the 84 foods included in the index advanced during April. Lower prices were reported for 36 items and 3 showed no change. Average prices for each of these 84 commodities for 51 large cities combined are shown in table 2 for April and February 1936 and for April 1935.

Details by Regions and Cities

FOOD costs rose in 45 of the 51 cities included in the index. Lower costs were reported for five cities and one city showed no change. The advances were distributed rather uniformly throughout all sections of the country.

The largest increase in costs, 2.8 percent, was reported by Memphis, where the price of eggs rose 7.8 percent and fresh-vegetable prices advanced sharply. Minneapolis, with a decline of 1.1 percent, showed the greatest decrease. In this city substantial price reductions were reported for wheat flour, white bread, apples, and potatoes.

Index numbers of the retail cost of food for April and March 1936, and for April of earlier years, are given in table 3.

Table 3.—Indexes of the Average Retail Cost of All Foods, by Cities[1]

April and March 1936 and April 1935, 1934, 1933, and 1929

[1923-25=100]

Region and city	1936				1935		1934	1933	1929
	Apr. 21	Apr. 7	Mar. 24	Mar. 10	Apr. 23	Apr. 9	Apr. 10	Apr. 15	Apr. 15
United States	**79.7**	**78.9**	**79.0**	**79.5**	**81.9**	**81.2**	**72.1**	**60.1**	**100.8**
New England	**78.8**	**77.9**	**77.9**	**78.4**	**79.6**	**78.9**	**70.9**	**59.8**	**99.6**
Boston	77.2	76.3	76.1	76.6	78.3	77.4	69.0	58.7	99.2
Bridgeport	82.2	82.2	82.8	82.7	84.2	82.1	74.9	63.3	99.7
Fall River	80.3	79.0	79.0	79.5	79.9	78.9	71.2	57.8	100.2
Manchester	82.5	80.9	80.9	80.9	82.0	80.1	73.0	59.6	98.5
New Haven	82.2	81.6	81.8	82.3	81.6	82.2	75.3	62.5	101.4
Portland, Maine	78.7	77.9	78.0	79.0	81.3	79.5	72.6	61.4	100.3
Providence	78.7	77.5	78.1	78.3	79.8	78.7	70.2	59.3	98.5
Middle Atlantic	**80.9**	**79.6**	**80.0**	**80.1**	**82.5**	**82.1**	**74.7**	**61.3**	**100.8**
Buffalo	79.4	78.1	78.4	79.1	82.4	83.9	71.8	59.4	100.1
Newark	81.4	80.7	81.2	81.1	83.7	83.5	74.8	61.8	100.7
New York	81.8	80.6	80.9	81.1	82.9	82.7	75.2	63.4	101.4
Philadelphia	82.9	81.1	81.2	81.5	82.8	82.6	77.5	60.7	100.0
Pittsburgh	78.0	77.1	78.6	77.4	82.2	80.2	71.5	58.6	102.0
Rochester	79.9	78.3	78.2	79.1	81.9	81.5	72.2	57.6	97.9
Scranton	76.9	76.1	76.3	76.8	77.1	76.7	71.8	59.0	101.4
East North Central	**79.9**	**79.2**	**79.1**	**80.1**	**82.6**	**82.0**	**70.9**	**59.2**	**102.5**
Chicago	80.2	79.8	79.6	80.7	83.4	82.2	69.6	61.6	105.1
Cincinnati	82.3	81.8	81.7	82.6	86.6	85.4	72.8	60.5	104.7
Cleveland	79.8	77.9	78.3	79.4	82.6	81.7	71.1	57.0	98.9
Columbus, Ohio	80.1	79.3	79.6	80.5	84.4	84.2	72.1	58.6	99.6
Detroit	79.4	79.5	79.0	80.0	80.3	80.6	71.1	55.5	101.0
Indianapolis	78.3	77.2	77.7	78.1	80.7	79.8	71.7	56.6	102.3
Milwaukee	82.0	80.9	80.6	81.6	82.2	82.2	73.3	63.6	103.0
Peoria	79.5	79.5	79.1	80.4	83.6	82.8	71.8	61.2	100.2
Springfield, Ill	77.0	76.6	76.8	77.9	80.8	79.5	69.3	59.3	99.3

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined for regions and for the United States with the use of population weights.

Table 3.—Indexes of the Average Retail Cost of All Foods, by Cities—Continued
April and March 1936 and April 1935, 1934, 1933, and 1929

Region and city	1936				1935		1934	1933	1929
	Apr. 21	Apr. 7	Mar. 24	Mar. 10	Apr. 23	Apr. 9	Apr. 10	Apr. 15	Apr. 15
West North Central	**81.8**	**81.3**	**81.4**	**82.2**	**85.9**	**84.7**	**72.8**	**59.5**	**101.8**
Kansas City	79.8	78.8	78.9	79.8	84.9	83.9	72.0	62.2	100.3
Minneapolis	84.4	84.0	85.3	85.9	86.8	86.8	75.5	58.2	103.0
Omaha	79.5	78.8	78.6	78.8	84.9	83.8	69.3	56.8	99.7
St. Louis	83.5	83.2	82.7	83.9	86.7	85.0	73.4	60.0	103.5
St. Paul	80.8	80.6	81.5	82.3	85.2	83.5	73.8	58.4	100.5
South Atlantic	**79.1**	**78.6**	**78.3**	**79.0**	**81.5**	**79.6**	**71.5**	**58.4**	**98.7**
Atlanta	74.8	75.2	74.4	75.2	78.3	76.9	68.3	55.7	101.1
Baltimore	83.8	82.8	83.0	83.0	84.4	83.0	73.8	61.0	97.0
Charleston, S. C	79.4	78.8	78.1	79.4	79.4	78.1	70.6	58.1	99.4
Jacksonville	76.2	76.0	76.0	76.5	75.8	74.8	66.1	54.1	93.6
Norfolk	78.4	78.5	78.2	79.5	79.9	78.3	73.1	57.3	103.4
Richmond	74.5	74.0	73.8	75.4	78.2	75.6	70.6	56.2	98.2
Savannah	79.8	79.1	78.6	78.6	80.7	79.1	71.2	57.4	100.7
Washington, D. C	81.8	80.6	79.9	80.8	87.5	84.0	74.0	62.2	100.0
East South Central	**74.4**	**73.6**	**73.4**	**74.1**	**78.0**	**76.8**	**68.8**	**56.8**	**101.4**
Birmingham	70.0	69.4	68.7	69.8	73.6	71.9	65.4	54.1	98.3
Louisville	82.3	81.5	82.3	82.5	84.8	84.9	75.3	62.0	108.3
Memphis	77.1	75.7	74.9	75.7	82.1	80.5	70.4	57.4	100.7
Mobile	74.5	73.9	74.1	73.9	77.9	76.9	66.7	57.7	99.3
West South Central	**77.2**	**76.7**	**76.7**	**77.3**	**80.5**	**80.4**	**70.0**	**58.7**	**101.0**
Dallas	75.2	74.4	74.1	75.7	79.2	79.4	68.9	58.1	102.3
Houston	76.4	76.2	76.2	76.1	79.4	78.9	69.0	58.0	98.4
Little Rock	76.7	76.2	75.9	76.7	78.3	77.6	67.4	54.9	101.2
New Orleans	81.1	80.7	81.0	81.0	84.4	84.5	73.5	61.5	102.6
Mountain	**83.0**	**81.9**	**81.9**	**82.5**	**86.6**	**85.6**	**69.4**	**60.7**	**97.8**
Butte	77.8	77.1	78.2	78.1	79.6	77.4	67.2	58.0	98.1
Denver	85.1	83.9	83.6	84.7	90.0	89.1	71.3	63.3	98.3
Salt Lake City	80.3	79.4	79.4	79.4	82.9	81.8	66.6	57.2	96.7
Pacific	**77.1**	**77.0**	**76.4**	**77.1**	**79.7**	**79.0**	**68.8**	**61.9**	**98.9**
Los Angeles	72.2	72.8	71.6	72.8	74.9	74.5	64.4	58.3	97.2
Portland, Oreg	80.3	79.5	79.1	79.0	80.7	79.1	66.5	59.6	98.2
San Francisco	80.9	80.4	80.4	80.6	84.1	83.2	74.0	66.7	101.3
Seattle	79.8	79.4	78.9	79.7	82.5	81.7	70.5	62.4	98.1

Retail Food Costs, 1929 to April 1936

RETAIL food costs on April 21, 1936, were 2.7 percent below the level for the corresponding date of 1935. During the year the food-cost indexes declined for all groups except sugar and sweets. Lower prices were reported for 53 of the 84 items included in the index.

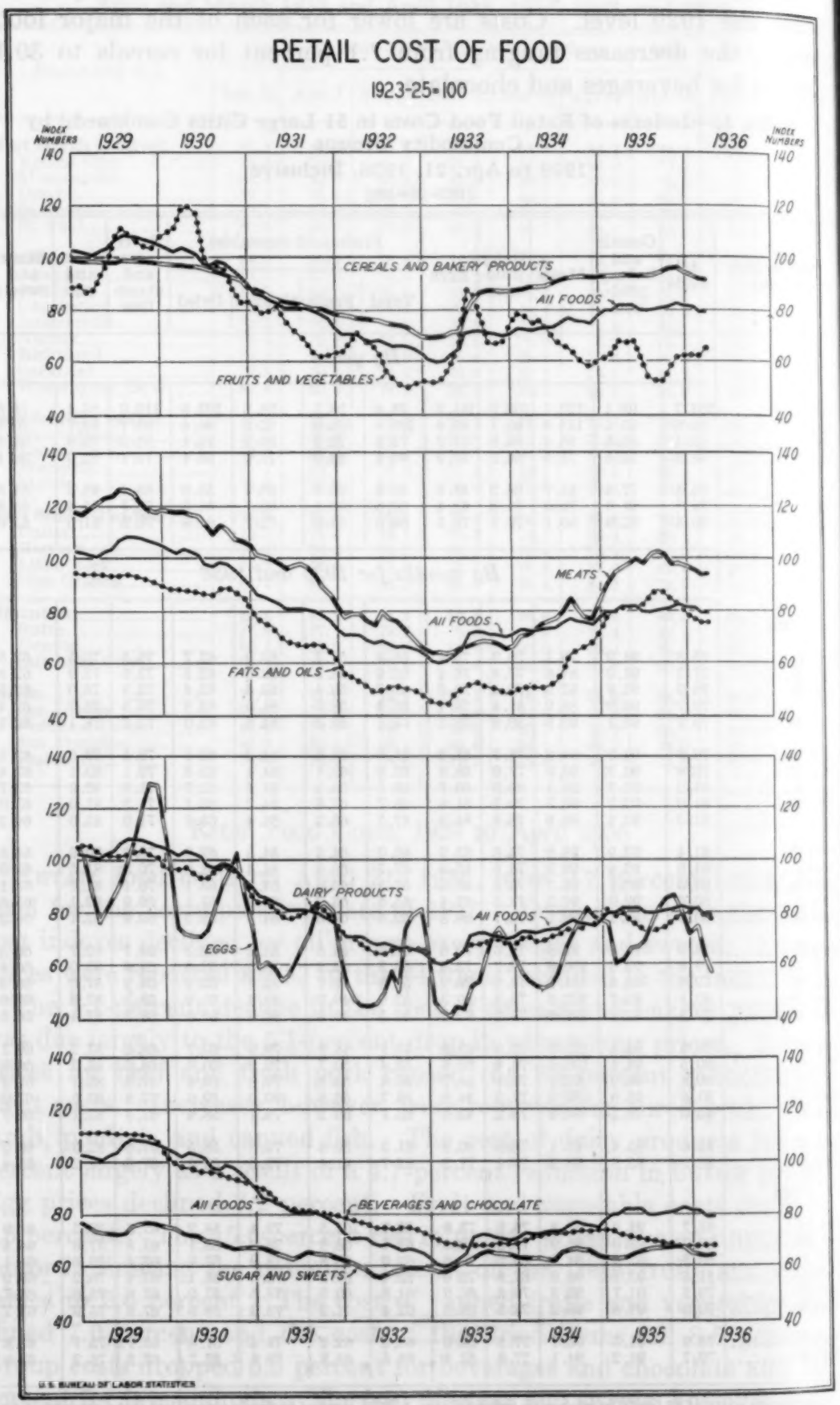
The 1.1-percent decline in the cost of cereals and bakery products was due largely to the 5.1-percent drop in wheat-flour prices. Lower prices for beef and fresh pork caused the 2.4-percent reduction in meat costs. Increases, however, were reported for cured pork, veal, lamb, poultry, and canned fish. The cost of dairy products fell 1.9 percent largely as a result of a 4.7-percent reduction in butter prices. Egg prices declined 7.2 percent. Fruit and vegetable costs dropped 3.3 percent. The 45.6-percent rise in potato prices was an important factor in limiting the reduction in cost of the fresh fruits and vegetables to 2.6 percent. The cost of canned fruits and vegetables declined 7.0 percent and the cost of the dried items fell 8.5 percent. Group costs dropped 5.3 percent for beverages and chocolate and 7.2 percent for fats and oils. The cost of sugar and sweets, however, rose 1.4 percent.

On the basis of the April indexes, food costs in 1936 are 20.9 percent below the 1929 level. Costs are lower for each of the major food groups, the decreases ranging from 7.1 percent for cereals to 39.1 percent for beverages and chocolate.

Table 4.—Indexes of Retail Food Costs in 51 Large Cities Combined,[1] by Commodity Groups
1929 to Apr. 21, 1936, Inclusive
[1923-25=100]

Year, month, and day	All foods	Cereals and bakery products	Meats	Dairy products	Eggs	Fruits and vegetables				Beverages and chocolate	Fats and oils	Sugar and sweets
						Total	Fresh	Canned	Dried			
By years												
1929	104.7	98.1	121.1	102.9	101.2	98.4	98.1	96.8	103.8	110.0	93.1	74.6
1930	99.6	95.1	113.6	95.1	85.4	103.4	104.9	92.3	96.4	95.7	86.7	70.1
1931	82.1	83.5	96.4	80.8	67.2	73.3	72.9	80.3	72.1	83.2	70.8	64.7
1932	68.3	75.5	75.5	66.7	57.9	60.4	59.9	71.0	55.4	75.1	52.0	58.4
1933	66.4	77.4	65.7	65.2	55.3	65.8	66.6	68.5	53.6	68.4	48.6	61.5
1934	74.1	91.0	75.0	71.2	62.4	69.8	69.6	80.7	61.3	71.7	55.4	63.8
1935	80.4	92.9	96.1	76.7	73.5	60.6	58.6	82.7	61.8	70.3	81.5	65.0
By months for 1935 and 1936												
1935												
Jan. 2	75.8	91.9	79.1	76.3	76.4	59.9	57.7	83.0	62.7	73.5	70.5	62.8
Jan. 15	77.5	91.9	84.6	77.4	76.2	60.6	58.5	83.0	62.5	73.6	72.9	62.5
Jan. 29	78.9	91.9	87.9	79.4	76.8	61.1	59.1	83.5	62.4	73.3	75.0	62.5
Feb. 12	79.7	92.0	88.9	81.4	78.1	60.9	58.7	84.0	62.8	73.3	76.7	62.4
Feb. 26	79.7	92.1	90.9	80.6	72.1	61.1	59.0	84.0	63.0	73.3	78.1	62.5
Mar. 12	79.6	92.0	94.2	78.7	61.2	61.9	59.9	84.2	62.9	72.5	79.6	62.6
Mar. 26	79.8	92.2	93.9	77.9	58.8	63.8	62.1	84.4	62.8	72.1	80.1	62.4
Apr. 9	81.2	92.3	95.1	80.3	60.7	66.5	65.1	84.4	62.7	71.6	80.6	62.7
Apr. 23	81.9	92.2	96.5	79.3	61.8	68.7	67.6	84.2	63.1	71.3	81.0	63.0
May 7	81.5	92.4	96.9	76.8	64.9	67.5	66.2	84.4	63.1	71.0	81.0	64.2
May 21	81.4	92.9	98.0	75.6	65.9	66.0	64.5	84.3	62.9	70.6	80.9	64.6
June 4	81.9	92.4	99.9	74.5	65.9	67.7	66.4	84.4	63.0	70.8	81.5	64.9
June 18	81.5	92.1	99.1	73.9	66.3	67.3	66.0	84.3	63.1	70.1	81.7	65.1
July 2	80.6	92.0	97.3	73.3	67.4	65.3	63.7	84.7	63.1	69.9	82.1	65.6
July 16	80.2	92.1	98.1	72.7	68.8	62.6	60.6	84.5	63.2	69.9	82.1	66.2
July 30	79.0	92.2	97.8	72.6	70.6	57.1	54.5	84.2	62.8	69.7	82.7	66.3
Aug. 13	79.6	92.6	100.6	72.7	73.4	55.3	52.4	83.5	62.9	69.4	85.0	66.4
Aug. 27	79.6	92.5	101.9	73.0	76.2	52.8	49.7	82.7	62.2	69.2	87.0	66.3
Sept. 10	80.1	92.7	102.6	73.3	80.3	52.9	49.9	81.4	61.9	69.5	87.3	66.6
Sept. 24	79.9	92.7	102.2	73.2	82.3	52.3	49.3	80.9	61.0	68.3	87.4	66.5
Oct. 8	79.9	93.4	101.3	73.5	83.8	51.7	48.8	79.9	60.7	68.1	87.2	66.7
Oct. 22	80.5	94.4	100.6	74.4	85.8	53.4	50.7	79.9	60.0	68.0	86.3	66.9
Nov. 5	80.4	94.9	97.1	75.1	86.7	55.4	53.1	79.8	59.4	67.8	85.1	67.1
Nov. 19	81.5	95.0	97.2	77.5	84.9	58.7	56.8	80.0	59.0	67.8	83.5	67.0
Dec. 3	82.0	95.3	97.4	78.2	82.8	60.7	59.2	79.7	58.4	67.5	83.1	66.7
Dec. 17	82.0	95.4	97.1	78.8	80.5	61.3	59.8	79.6	58.5	67.6	82.3	66.5
Dec. 31	82.5	95.6	98.2	79.4	77.2	62.7	61.4	79.6	58.6	67.6	81.2	66.4
1936												
Jan. 14	81.7	94.0	97.3	79.8	73.8	62.7	61.5	79.4	58.2	67.6	79.3	64.9
Jan. 28	80.7	93.0	95.9	79.8	69.6	62.1	60.8	79.2	58.1	67.5	77.6	64.4
Feb. 11	80.6	92.5	94.9	80.5	70.6	62.0	60.8	78.9	57.9	67.4	76.8	64.1
Feb. 25	81.3	92.1	94.9	81.8	78.0	62.4	61.2	78.6	58.1	67.4	76.2	63.9
Mar. 10	79.5	91.7	93.3	79.5	66.9	61.8	60.5	78.5	57.9	67.6	75.6	63.7
Mar. 24	79.0	91.6	93.2	78.5	59.5	62.4	61.2	78.3	58.0	67.6	75.3	63.7
Apr. 7	78.9	91.3	93.7	77.8	56.9	63.3	62.2	78.4	57.8	67.7	75.1	63.8
Apr. 21	79.7	91.2	94.1	77.8	57.4	66.5	65.8	78.3	57.7	67.5	75.2	63.8

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights.


RETAIL COST OF FOOD
1923-25=100
INDEX NUMBERS
1929
1930
1931
1932
1933
1934
1935
1936
140
120
100
80
60
40
CEREALS AND BAKERY PRODUCTS
All FOODS
FRUITS AND VEGETABLES
MEATS
All FOODS
FATS AND OILS
DAIRY PRODUCTS
All FOODS
EGGS
All FOODS
BEVERAGES AND CHOCOLATE
SUGAR AND SWEETS
U.S. BUREAU OF LABOR STATISTICS

Indexes of retail food costs for all foods and for the various commodity groups are given in table 4 (p. 1735) by years from 1929 to 1935 and for all pricing periods from January 2, 1935, to April 21, 1936.

The chart on page 1736 shows the relative changes in the retail costs of all foods and each of the major food groups from 1929 to April 1936, inclusive.

Fuel and Light

Prices of electricity, gas, and coal usually published in the June issue of the Monthly Labor Review will be published in the July issue.

WHOLESALE PRICES

Wholesale Prices in April 1936

THE Bureau of Labor Statistics index number of wholesale commodity prices advanced 0.1 percent during April to 79.7 percent of the 1926 average, largely because of rising prices for farm products, fuel and lighting materials, and building materials. Despite this increase the general index is 0.5 percent below the level of a year ago. Compared with the April 1929 level of wholesale commodity prices—95.5—the current index shows a decline of 16.5 percent. It is, however, 32 percent above April 1933, when the index had fallen to 60.4.

Wholesale fuel and lighting material prices rose 0.7 percent during the month. Farm products and building materials advanced 0.5 percent, miscellaneous commodities 0.4 percent, and foods and house-furnishing goods 0.1 percent. Chemicals and drugs, on the other hand, declined 1 percent, textile products 0.8 percent, and hides and leather products 0.3 percent. The group of metals and metal products remained unchanged at the March level.

Six of the ten major commodity groups are above their respective April 1935 levels. The increases range from 0.8 percent for metals and metal products to 9.6 percent for hides and leather products. The decreases during the year period for the remaining four groups ranged from 0.1 percent for miscellaneous commodities to 5.1 percent for foods.

Changes within the major commodity groups influencing the trend of the composite index in April are summarized in table 1.

Table 1.—Number of Items Changing in Price From March to April 1936

Groups	Increases	Decreases	No change
All commodities	132	179	473
Farm products	28	33	6
Foods	29	59	34
Hides and leather products	4	6	31
Textile products	6	35	71
Fuel and lighting materials	6	10	8
Metals and metal products	16	12	102
Building materials	21	8	57
Chemicals and drugs	5	11	73
House-furnishing goods	4	2	55
Miscellaneous	13	3	36

Notwithstanding a decrease of 2.7 percent in April the current index for the group of "All commodities other than farm products and processed foods" is 2.3 percent above the level of a year ago. Non-agricultural commodities advanced 1.6 percent during April to a point 0.4 percent above a year ago. Finished products were 0.5 percent higher in April as compared with March, but were 0.7 percent below April of last year. Although the group of semimanufactured articles rose only 0.1 percent during the month, it now stands 3 percent above the corresponding month of a year ago. The index for the raw-materials group declined 0.5 percent during the month interval and is now 0.6 percent below the index for April 1935.

A comparison of the April level of wholesale prices with March 1936 and April 1935 is shown in table 2.

Table 2.—Comparison of Index Numbers for April 1936, with March 1936, and April 1935

[1926=100]

Commodity Groups	April 1936	March 1936	Change from a month ago	April 1935	Change from a year ago
			Percent		*Percent*
All commodities	79.7	79.6	+0.1	80.1	−0.5
Farm products	76.9	76.5	+.5	80.4	−4.4
Foods	80.2	80.1	+.1	84.5	−5.1
Hides and leather products	94.6	94.9	−.3	86.3	+9.6
Textile products	70.2	70.8	−.8	69.2	+1.4
Fuel and lighting materials	76.7	76.2	+.7	72.8	+5.4
Metals and metal products	86.6	86.6	.0	85.9	+.8
Building materials	85.7	85.3	+.5	84.6	+1.3
Chemicals and drugs	78.5	79.3	−1.0	81.0	−3.1
House-furnishing goods	81.5	81.4	+.1	80.7	+1.0
Miscellaneous commodities	68.6	68.3	+.4	68.7	−.1
All commodities other than farm products	80.2	78.9	+1.6	79.9	+.4
All commodities other than farm products and foods	79.0	81.2	−2.7	77.2	+2.3
Raw materials	77.0	77.4	−.5	77.5	−.6
Semimanufactured articles	74.5	74.4	+.1	72.3	+3.0
Finished products	81.7	81.3	+.5	82.3	−.7

Index numbers for the groups and subgroups of commodities for March and April 1936 and April of each of the past 7 years are shown in table 3.

Table 3.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities

[1926=100]

Groups and subgroups	April 1936	Mar. 1936	April 1935	April 1934	April 1933	April 1932	April 1931	April 1930	April 1929
All commodities	79.7	79.6	80.1	73.3	60.4	65.5	74.8	90.0	95.5
Farm products	76.9	76.5	80.4	59.6	44.5	49.2	70.1	95.8	104.9
Grains	73.9	75.6	87.9	58.8	44.8	44.5	59.5	84.1	94.3
Livestock and poultry	88.3	88.3	85.9	49.2	41.0	49.2	70.3	96.9	114.7
Other farm products	70.4	69.1	74.5	65.7	46.7	51.2	73.4	99.0	101.8
Foods	80.2	80.1	84.5	66.2	56.1	61.0	76.3	94.9	98.0
Dairy products	78.8	80.3	84.9	66.5	53.1	61.6	80.6	99.0	105.9
Cereal products	84.2	85.8	93.3	84.8	65.9	68.2	74.3	84.6	86.3
Fruits and vegetables	67.8	65.1	67.3	67.9	57.8	62.3	76.2	109.6	84.8
Meats	91.0	89.7	94.3	57.3	50.3	59.8	79.9	103.2	111.5
Other foods	72.4	72.4	76.2	62.1	56.6	55.8	69.9	82.5	90.2
Hides and leather products	94.6	94.9	86.3	88.9	69.4	75.0	87.5	102.7	107.8
Shoes	100.3	100.4	97.2	98.5	83.2	88.4	94.8	103.8	106.6
Hides and skins	90.1	91.0	71.2	76.7	45.8	40.8	62.0	95.8	108.2
Leather	84.5	85.6	74.9	78.4	57.2	67.2	88.4	105.3	111.3
Other leather products	95.4	95.4	84.6	86.7	77.2	98.0	101.6	105.7	105.5
Textile products	70.2	70.8	69.2	75.3	51.8	56.1	68.2	84.0	91.6
Clothing	80.8	80.7	78.5	85.7	61.4	64.9	76.9	87.2	90.1
Cotton goods	76.2	77.1	81.8	88.2	50.7	55.1	71.4	89.6	99.4
Knit goods	62.0	62.1	61.6	64.2	47.2	51.9	60.7	83.4	89.9
Silk and rayon	30.1	30.9	27.6	28.4	26.3	31.3	43.4	71.1	83.1
Woolen and worsted goods	82.2	83.8	73.1	82.0	53.3	59.7	69.0	80.7	90.7
Other textile products	67.5	67.2	67.5	78.9	67.5	68.2	76.2	87.7	95.0
Fuel and lighting materials	76.4	76.2	72.8	71.7	61.5	70.2	65.4	79.5	81.9
Anthracite	80.0	82.5	75.5	78.1	81.4	85.7	86.4	90.2	88.1
Bituminous coal	96.8	99.4	95.4	93.7	78.1	82.7	84.4	88.4	89.3
Coke	93.7	93.7	88.7	84.3	75.2	79.8	83.7	84.2	84.7
Electricity	[1]	84.4	87.8	88.3	98.3	103.5	93.7	92.3	92.2
Gas	[1]	84.4	88.0	92.2	97.5	99.1	96.1	95.2	93.0
Petroleum products	57.9	56.0	51.0	49.4	32.5	45.5	37.4	65.6	71.1
Metals and metal products	86.6	86.6	85.9	87.9	76.9	80.3	85.7	95.3	102.3
Agricultural implements	94.2	94.2	93.6	85.2	83.1	85.0	94.3	94.6	99.2
Iron and steel	86.3	86.3	86.0	87.3	75.7	80.1	84.1	90.8	95.6
Motor vehicles	94.0	94.0	93.6	97.8	90.4	93.8	94.5	102.8	107.8
Nonferrous metals	70.4	69.9	68.2	68.0	49.2	49.3	67.5	91.9	113.2
Plumbing and heating	73.8	73.8	67.1	76.2	59.4	64.4	86.6	96.2	97.0
Building materials	85.7	85.3	84.6	86.7	70.2	72.5	81.5	93.5	96.3
Brick and tile	89.0	88.9	89.7	90.7	75.0	78.4	83.9	92.0	95.4
Cement	95.5	95.5	94.9	89.7	81.8	75.0	81.0	92.7	94.6
Lumber	83.2	82.6	79.9	87.2	57.9	60.0	73.4	91.3	95.2
Paint and paint materials	79.3	79.2	79.2	79.8	68.9	74.7	81.2	93.9	92.0
Plumbing and heating	73.8	73.8	67.1	76.2	59.4	64.4	86.6	96.2	97.0
Structural steel	92.0	92.0	92.0	86.8	81.7	81.7	84.3	91.9	97.0
Other building materials	89.1	88.5	89.4	90.4	77.9	80.2	86.9	95.5	99.4
Chemicals and drugs	78.5	79.3	81.0	75.5	71.4	74.4	81.3	91.2	94.7
Chemicals	85.5	85.9	87.2	78.6	79.5	79.7	85.1	96.3	99.4
Drugs and pharmaceuticals	73.2	73.0	73.8	72.2	54.6	58.9	63.4	68.7	71.7
Fertilizer materials	64.6	64.8	66.0	68.7	62.9	70.1	80.6	88.1	94.6
Mixed fertilizer	64.5	68.3	72.9	72.7	60.0	71.1	83.5	94.4	96.2
House-furnishing goods	81.5	81.4	80.7	81.6	71.5	76.3	87.9	93.5	94.0
Furnishings	85.0	84.9	84.2	83.5	71.7	75.4	84.2	92.5	93.8
Furniture	78.0	77.9	77.1	79.9	71.5	77.4	91.9	94.6	94.3
Miscellaneous	68.6	68.3	68.7	69.5	57.8	64.7	71.5	81.0	81.9
Automobile tires and tubes	45.0	45.0	46.3	44.6	37.4	39.2	46.9	53.0	55.1
Cattle feed	74.0	67.9	104.9	76.1	49.5	53.4	81.2	117.1	108.9
Paper and pulp	80.5	80.3	80.4	83.6	70.6	76.8	82.1	87.0	88.9
Rubber, crude	33.0	32.9	23.7	24.6	7.4	6.6	13.3	30.9	44.0
Other miscellaneous	80.6	80.6	79.0	83.2	72.7	84.5	89.3	98.8	97.5
Raw materials	77.0	77.4	77.5	65.1	50.0	55.5	68.3	89.8	97.0
Semimanufactured articles	74.5	74.4	72.3	73.9	57.3	59.6	71.5	86.1	94.8
Finished products	81.6	81.3	82.3	77.1	65.7	71.1	78.3	90.7	95.0
All commodities other than farm products	80.1	80.2	79.9	76.2	63.7	68.9	75.7	88.8	93.6
All commodities other than farm products and foods	78.9	78.9	77.2	78.6	65.3	70.9	75.9	87.8	91.8

[1] Data not yet available.

Weekly Fluctuations

THE index number of wholesale commodity prices registered a moderate advance in April despite recessions during the first and last weeks of the month. The April high was reached during the week ending April 18 when the index stood at 79.7 percent of the 1926 average. The index receded from 79.3 for the week of March 28 to 79.2 for April 4, then rose to 79.5 for April 11 and 79.7 for April 18. It shaded off to 79.6 for the week ending April 25.

The large group of nonagricultural commodities (all commodities other than farm products) registered a slight rise between the last week of March and the first week of April. The index advanced from 79.8 to 79.9 during this period. The rise continued to 80.0 and 80.2 for the following 2 weeks but dropped back to 80.0 for the week of April 25. During the first week of April all commodities other than farm products and processed foods remained at the March 28 level—78.8—then rose to 79.0 and 79.1 for the second and third weeks. The index for this group, however, receded to 79.0 for the week ending April 25. Raw materials declined between the weeks of March 28 and April 4, but regained this loss and advanced to 77.3 on April 18. Raw materials, however, dropped to 77.1 for the week of April 25, registering a net loss of 0.1 percent during the month. Semimanufactured articles rose slightly during the week of April 18, but by the end of the month had fallen to 74.5—the level at the beginning of the month. The large group of finished products rose steadily from March 28 through April 18 with index numbers of 81.3, 81.6, and 81.9 and then declined fractionally the week ending April 25 to 81.8 percent of the 1926 average.

Farm product prices registered a net gain for the 4 weeks of April of 1.3 percent. After declining from 76.8 for the last week of March to 76.3 for the week of April 4, this group rose steadily to 76.9, 77.4, and 77.8 for the 3 remaining weeks. Grains advanced 6 percent between the weeks of April 11 and 25. Livestock and poultry, on the other hand, averaged fractionally lower during this period. Higher average prices were reported for corn, cows, sheep, hay, hogs, peanuts, seeds, and potatoes. Prices of barley, wheat, rye, steers, live poultry, eggs, lemons, onions, and wool were lower. The average for the month was 4.4 percent below the corresponding month of a year ago.

The wholesale foods group rose sharply during the second and third weeks of April, reaching 81.1 for the week of April 18. Despite a decline to 80.4 for the last week of the month, the foods group showed a net gain of 0.9 percent. Dairy products advanced through the week ending April 18 but fell sharply the following week. Cereal products fell sharply between April 4 and 11. They more than recovered this loss by the end of the month. Fruits and vegetables rose 5.4 percent

from the first to the third week in April, then declined nearly 1 percent between the third and fourth weeks of the month. Meats followed precisely the same course although the changes were not so pronounced. The increase for meats between April 4 and 18 was 1.1 percent, and the decrease between April 18 and 25 was 0.3. Individual food items which averaged higher in April were powdered milk, hominy grits, corn meal, rice, dried fruits, canned vegetables, lamb, mutton, fresh pork, veal, dressed poultry, raw sugar, and tallow. Food items which decreased in price during April were butter, cheese, flour, bananas, ginger ale, cocoa beans, coffee, oleo oil, and peanut butter.

Hides and leather products as a group showed very little change during April. Prices of hides and skins weakened slightly and leather strengthened. Shoes and other leather products remained firm.

A slight downward tendency was evidenced by the textile products group during the month. Although the index fell consistently each week, the net decline from the last week of March amounted to only 1 percent. Lower prices for cotton goods, silk and rayon, and woolen and worsted goods were responsible for the decrease. Clothing and other textile products were fractionally higher and knit goods remained unchanged at the March 28 level.

From an index of 76.7 for the last week of March fuel and lighting materials rose to 77.6 for the second week of April. Seasonal declines in prices of coal caused the index for the group as a whole to recede to 77.4 by the last of the month. Petroleum products advanced during the month and coke remained steady.

Advancing prices of iron and steel, principally scrap steel and wire fencing, and certain nonferrous metals, such as electrolytic copper and copper and brass manufactures, resulted in the index for the metals and metal products group registering minor increases during each week of April. Quicksilver and pig tin weakened and agricultural implements declined slightly toward the latter part of the month. Average prices of motor vehicles and plumbing and heating fixtures were unchanged.

Prices of building materials were somewhat more firm in April. The index advanced from 85.2 for the last week of March to 85.5 for the last week of April. The increase was due primarily to rising prices for sand, gravel, prepared roofing, brick, and tile. Wholesale prices of lumber weakened toward the latter part of the month. Structural steel and cement remained steady.

Three consecutive weekly declines amounting to 1.1 percent were registered by the chemicals and drugs group during April. Prices of chemicals, principally fats and oils, fell steadily. Mixed fertilizers dropped 5.4 percent between March and April. The index for the house-furnishing goods group rose slightly during April. Both furnishings and furniture shared in the advance.

In the miscellaneous group of commodities cattle feed prices rose 13.5 percent between the first and third weeks of April, then declined 0.3 percent between the third and last weeks of the month. Crude rubber prices advanced 1.5 percent from April 4 to April 18 and decreased 0.9 percent from April 18 to 25. The subgroup of paper and pulp remained unchanged during the 4-week interval from March 28 to April 25.

Table 4 shows index numbers for the main groups of commodities for each week of March and April 1936.

Table 4.—Weekly Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Commodity groups	Apr. 25, 1936	Apr. 18, 1936	Apr. 11, 1936	Apr. 4, 1936	Mar. 28, 1936	Mar. 21, 1936	Mar. 14, 1936	Mar. 7, 1936
All commodities	79.6	79.7	79.5	79.2	79.3	79.3	79.2	79.7
Farm products	77.8	77.4	76.9	76.3	76.8	76.7	76.4	77.7
Foods	80.4	81.1	80.2	79.7	79.7	79.9	79.7	81.4
Hides and leather products	95.2	95.2	95.1	95.1	95.3	95.3	95.5	95.7
Textile products	69.7	69.9	69.9	70.1	70.4	70.4	70.4	70.4
Fuel and lighting materials	77.4	77.5	77.6	76.8	76.7	76.7	77.2	77.3
Metals and metal products	86.0	86.0	85.9	85.9	85.7	85.9	85.9	86.0
Building materials	85.5	85.4	85.4	85.3	85.2	85.1	85.1	85.0
Chemicals and drugs	78.2	78.9	79.0	79.1	79.1	79.0	79.0	79.4
House-furnishing goods	82.8	82.8	82.8	82.7	82.7	82.6	82.6	82.7
Miscellaneous	68.6	68.6	68.3	68.2	68.2	68.2	68.2	68.2
Raw materials	77.1	77.3	77.0	76.9	77.2	77.4	77.2	77.9
Semimanufactured articles	74.5	74.6	74.5	74.5	74.5	74.5	74.6	74.7
Finished products	81.8	81.9	81.6	81.3	81.2	81.2	81.2	81.6
All commodities other than farm products	80.0	80.2	80.0	79.9	79.8	79.9	79.8	80.1
All commodities other than farm products and foods	79.0	79.1	79.0	78.8	78.8	78.8	79.0	79.0

COST OF LIVING

Money Disbursements of Wage Earners and Clerical Workers in Four Michigan Cities [1]

FAMILIES of employed wage earners and lower-salaried clerical workers in Michigan cities are excellent patrons of the industry which has made their State so famous. Two-thirds of the Michigan families included in the Bureau of Labor Statistics' study of the consumption in this group owned automobiles. This proportion is appreciably higher than that for the other cities covered so far in this investigation.

As might be expected, the percentage differed from one economic level to another. It was found in Detroit that 49 percent of the families at the lowest level and 79 percent at the highest level owned automobiles. In the other three cities from 52 percent in Lansing to 68 percent in Grand Rapids at the lower level and at the higher level from 60 percent in Marquette to 81 percent in Grand Rapids owned automobiles.

The proportion of wage earners' and clerical workers' families buying new automobiles during the year covered by the investigation (1934–35) was considerably higher in Detroit (5.7 percent) than in the other three Michigan cities studied. The proportion was lowest in Grand Rapids and Marquette, 1.5 and 1.4, respectively. In Lansing it was nearer that of Detroit, 4.1 percent. The proportion buying second-hand automobiles during the year showed a similar variation: 12.0 percent in Detroit, 11.6 percent in Lansing, 6.7 percent in Grand Rapids, and 6.8 percent in Marquette.

[1] Prepared by the Bureau's Cost of Living Division, Faith M. Williams, chief. The survey in Michigan was conducted in cooperation with the school of education at the University of Michigan and the Michigan Emergency Relief Administration. The field work was supervised by Frances Rice and Arthur Rayhawk, of the Bureau of Labor Statistics. For previous articles on the study of expenditures of wage earners and lower-salaried clerical workers, see Monthly Labor Review, March 1936 (pp. 554–563); April 1936 (pp. 889–894); and May 1936 (pp. 1457–1464). The figures in these articles are preliminary and subject to revision.

Table 1.—Ownership of Automobiles by Families at Different Consumption Levels, in Four Michigan Cities, 1934–35

City, and annual expenditure per consumption unit	Number of families	Families owning cars		Families purchasing cars in the year covered					
				New		Second-hand		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Detroit:									
Under $300	75	37	49.3	1	1.3	7	9.3	8	10.7
$300 to $400	103	62	60.2	1	1.0	8	7.8	9	8.8
$400 to $500	121	86	71.1	3	2.5	12	9.9	15	12.4
$500 to $600	101	74	73.3	3	3.0	15	14.9	18	17.8
$600 to $700	75	53	70.7	4	5.3	10	13.3	14	18.7
$700 and over	125	99	79.2	22	17.6	20	16.0	42	33.6
Total	600	410	68.3	34	5.7	72	12.0	106	17.7
Grand Rapids:									
Under $400	88	60	68.2	0	0.0	8	9.1	8	9.1
$400 and over	107	87	81.3	3	2.8	5	4.7	8	7.5
Total	195	147	75.4	3	1.5	13	6.7	16	8.2
Lansing:									
Under $400	60	31	51.7	0	0.0	4	6.7	4	6.7
$400 and over	86	69	80.2	6	7.0	13	15.1	19	22.1
Total	146	100	68.5	6	4.1	17	11.6	23	15.8
Marquette:									
Under $400	85	48	56.5	0	0.0	6	7.1	6	7.1
$400 and over	63	38	60.3	2	3.2	4	6.3	6	9.5
Total	148	86	58.1	2	1.4	10	6.8	12	8.2

Differences in the proportion of the families buying automobiles in these four cities may be explained in part by differences in the money incomes of the wage earner and clerical group from city to city in the year of the study. Average incomes of the families studied varied from $1,580 in Detroit to $1,399 in Lansing, $1,326 in Marquette, and $1,260 in Grand Rapids. The considerably higher figure in Detroit is caused in part by the fact that supplementary earnings were somewhat larger there than in the other three cities. Differences in the average earnings of the chief earners of the families studied were, however, a much more important cause of the variation. Average earnings of chief earners ranged from $1,107 in Grand Rapids to $1,389 in Detroit.

Michigan cities tend to be specialized in their industrial activities. The chief industry in Lansing as well as in Detroit is the manufacture of automobiles. Grand Rapids has been primarily concerned with the manufacture of furniture and household equipment. Marquette has railroad repair shops. It is a port and railroad terminal, occupied largely with the transportation of iron and copper ore. Most of the data on family income and expenditures secured in these Michigan cities apply to the year 1934. Indexes of average pay rolls for the United States for the industries with which they are so much

concerned throw light on the average incomes of their wage earners and clerical workers. According to reports to the Bureau of Labor Statistics, pay rolls averaged 68.2 percent of the 1929 level in the automobile industry, 36.8 percent in the furniture manufacturing industry, 52.9 percent in repair shops for steam railroads, and 26.7 percent in the metalliferous-mining industry. Average weekly earnings in the motor-vehicle industry in Detroit in April 1934 were $28.47, and in Michigan, excluding Detroit, were $26.06.

In the year covered by the data secured, the average number of cases on relief in Detroit was 44,700; in Grand Rapids, 8,800; in Lansing, 3,400; and in Marquette County, 3,100, according to figures supplied by the Federal Emergency Relief Administration.

Table 2.—Annual Income and Expenditure of 1,089 Families in Four Michigan Cities in 1934–35

Item	Detroit	Grand Rapids	Lansing	Marquette
Population, 1930	1,568,662	168,592	78,397	14,789
Number of families studied	600	195	146	148
Average number of members in economic family	3.68	3.49	3.38	4.03
Average number of consumption units per family	3.32	3.19	3.06	3.62
Average number of gainful workers per family	1.35	1.37	1.30	1.27
Average income per family	$1,580	$1,260	$1,399	$1,326
Average earnings of chief earner	$1,389	$1,107	$1,269	$1,223
Average current expenditure per family	$1,593	$1,297	$1,366	$1,257

Families Studied

THE study of the money disbursements of wage earners and lower-salaried clerical workers in these four Michigan cities forms a part of the Nation-wide survey made by the Bureau of Labor Statistics for the purpose of revising its cost-of-living indexes.

The families studied were carefully selected to represent a cross section of the families of employed white wage earners and lower-salaried clerical workers in the four cities. All the families included had one or more workers who worked a minimum of 1,008 hours in at least 36 weeks during the year.[2] Since the data were being obtained primarily for the purpose of providing a basis for indexes of living costs, it was important that they should not reflect the distorted spending of families whose incomes had been abnormally low or irregular. On that account no data were included from families whose incomes were under $500 a year or from families who received relief during the year. The number of persons in the families of employed wage earners and lower-salaried clerical workers from whom complete figures on receipts and disbursements were secured averaged 3.68 in Detroit, 3.49 in Grand Rapids, 3.38 in Lansing, and 4.03 in

[2] An exception was made in the case of families in which the chief earner was employed in an industry distinctly seasonal. Such families were included if the chief earner had employment for 3½ 8-hour days in each of 30 weeks.

Marquette. The number of workers in these families who were gainfully employed at some time during the year covered by the investigation averaged 1.35 in Detroit, 1.37 in Grand Rapids, 1.30 in Lansing, and 1.27 in Marquette. The average size of white families of two or more persons as reported by the census of 1930 was 3.91 in Detroit and 3.77 in Grand Rapids.[3]

Average Distribution of Family Expenditures

DIFFERENCES in the average distribution of family expenditures in the four cities reflect variations in income level, size of family, and cost of goods. The relatively high percentage of the total going to food in Marquette is characteristic of communities with lower incomes and larger families. The fact that the percentage spent for food in Detroit is higher than that in Grand Rapids and Marquette cannot be accounted for entirely by the higher food costs in Detroit, or the slightly larger families of the group studied in the larger city. It may, perhaps, be due in part to differences in consumption habits.

Table 3.—Annual Current Expenditures for All Items by 1,089 Families in Michigan, 1934–35

Item	Detroit	Grand Rapids	Lansing	Marquette
Number of families studied	600	195	146	148
Average number of members in economic family	3.68	3.49	3.38	4.03
Average number of consumption units per family	3.32	3.19	3.06	3.62
Average total current expenditure	$1,593	$1,297	$1,366	$1,257
	Percentage distribution			
Expenditure for—				
Food	32.3	30.9	29.4	37.4
Clothing	11.8	11.4	11.8	11.8
Housing	15.1	12.8	15.2	13.2
Household operation	10.4	13.4	13.5	12.1
Furnishings and equipment	4.0	4.3	4.9	4.0
Transportation	10.7	11.0	9.8	5.0
Personal care	2.0	2.1	2.2	2.1
Medical care	4.1	3.9	4.0	4.3
Recreation	5.8	5.0	4.5	4.6
Education	.6	.6	.5	.7
Vocation	.2	.3	.3	.4
Community welfare	.9	1.8	.9	1.3
Gifts and contributions to persons outside the family	1.6	1.6	2.1	1.7
Miscellaneous items	.5	.9	.9	1.4
Total current expenditure	100.0	100.0	100.0	100.0

Differences in the proportion of current money expenditure for housing and household operation in the four cities are largely caused by the inclusion of heat and hot-water costs with rental charges to families living in apartments, which was much more general in Detroit than in the other three cities. When the percentages spent for housing and for household operation are added together, the averages for

[3] Census figures on distribution of families by size are not available for Lansing and Marquette.

Detroit, Grand Rapids, and Marquette are very similar—25.5, 26.2, 25.3. The figure for Lansing, 28.7 percent, is somewhat higher. There is some evidence to show that the Lansing group had more complete household facilities than the groups studied in Grand Rapids and Marquette. A larger proportion had central heating, electric lights, and gas or electricity for cooking.

The proportion of total expenditures allotted on the average to transportation is strikingly similar in Detroit, Grand Rapids, and Lansing, 10.7, 11.0, and 9.8 percent. The distinctly lower proportion in Marquette, 5.0 percent, is very much like the percentage spent for transportation in cities of similar size in New Hampshire.

The uniformity of the percentage of total expenditures allotted to personal care among the wage earner and clerical group in the cities so far covered is remarkable evidence of the uniformity of community customs in the United States.

Almost as constant a percentage is allocated to clothing, in all the cities for which reports are available to date, and at all economic levels.

A classification of families by consumption level [4] brings together the families with approximately the same expenditure per equivalent adult male.

In a group of families of different size and the same income, the larger families will fall in the lower consumption groups simply because their incomes are divided among more dependents, and there will be more small families at the upper than at the lower levels. In this study a relatively narrow income range is covered and it is to be expected that the average size of families at the lower expenditure levels will be greater than at the upper levels.

The demands of persons of various age, sex, and occupation groups, relative to those of an adult male, differ for food and clothing. They differ also for all other items of expenditure, but, probably the difference is less marked than in the case of food and clothing. In view of the difficulties of computing a scale of expenditure for these "other" items, all members of the family are considered as having equal demands for these items. Families are grouped according to expenditure per consumption unit, such expenditure per consumption unit being the sum of (1) the expenditure per adult male equivalent for food, (2) the expenditure per adult male equivalent for clothing, and (3) the expenditure per full-time member of the economic family for all other items. Therefore, to get a picture of the expenditure per equivalent-adult-male member of the family, total family expenditure

[4] For a more detailed account of this method of classification of families see Monthly Labor Review, March 1936 (pp. 558–559).

allocated to various items must be reviewed in terms of the number of consumption units (equivalent adult males) for these various items who share in these expenditures.

More money is spent for medical care as the economic level improves. Marquette families, which allocated a larger percentage of expenditure to medical care than families in any of the other three cities, used 3.8 percent of total expenditures at the lower level for medicines, doctor's bills, and hospitals, but 4.7 percent at the upper level.

Table 4.—Distribution of Annual Current Expenditures by Families at Different Consumption Levels, in Detroit, 1934–35

Item	Families with annual expenditure per consumption unit of—					
	Under $300	$300 and under $400	$400 and under $500	$500 and under $600	$600 and under $700	$700 and over
Number of families	75	103	121	101	75	125
Average number of members in economic family	5.78	4.74	3.73	3.18	2.90	2.37
Average number of consumption units per family	5.07	4.16	3.39	2.88	2.69	2.27
Average total current expenditure	$1,229	$1,435	$1,527	$1,572	$1,736	$1,935
	Percentage distribution					
Expenditure for—						
Food	40.9	38.5	34.3	31.2	30.4	25.2
Clothing	11.1	12.1	12.2	10.7	12.3	11.9
Housing	14.3	14.6	14.6	16.3	14.5	15.8
Household operation	12.5	11.5	10.7	10.1	10.4	8.7
Furnishing and equipment	2.0	3.1	3.8	4.2	4.3	5.0
Transportation	5.9	2.0	9.2	10.4	11.2	15.9
Personal care	2.0	2.0	2.2	1.9	2.1	1.9
Medical care	3.1	2.9	3.9	4.6	5.7	4.4
Recreation	5.2	5.1	5.4	6.4	5.6	6.8
Education	.8	.6	.8	.4	.6	.4
Vocation	.2	.1	.3	.1	.1	.3
Community welfare	1.1	1.0	.8	1.0	1.0	.8
Gifts and contributions to persons outside the family	.6	.9	1.3	2.1	1.6	2.3
Miscellaneous items	.3	.6	.5	.6	.2	.6
Total current expenditure	100.0	100.0	100.0	100.0	100.0	100.0

Table 5.—Distribution of Annual Current Expenditures by Families at Different Consumption Levels, in 3 Michigan Cities, 1934–35

Item	Grand Rapids		Lansing		Marquette	
	Families with annual expenditure per consumption unit of—					
	Under $400	$400 and over	Under $400	$400 and over	Under $400	$400 and over
Number of families	88	107	60	86	85	63
Average number of members in economic family	4.33	2.80	4.29	2.74	4.84	2.93
Average number of consumption units per family	3.87	2.63	3.80	2.54	4.30	2.69
Average total current expenditure	$1,116	$1,446	$1,125	$1,534	$1,070	$1,510
	Percentage distribution					
Expenditure for—						
Food	36.1	27.6	34.5	26.7	42.6	32.5
Clothing	12.4	10.8	11.5	11.9	10.9	12.7
Housing	11.7	13.5	15.6	14.9	13.0	13.4
Household operation	14.1	12.8	14.7	13.0	12.3	11.8
Furnishing and equipment	3.2	5.0	4.1	5.3	2.7	5.2
Transportation	7.9	13.1	5.6	12.1	3.8	6.2
Personal care	2.2	1.9	2.1	2.2	2.1	2.3
Medical care	3.0	4.6	4.0	4.0	3.8	4.7
Recreation	5.1	5.0	3.9	4.9	4.3	4.8
Education	.8	.5	.9	.3	1.0	.5
Vocation	.2	.4	.6	.1	.3	.5
Community welfare	2.1	1.7	1.0	.8	1.2	1.3
Gifts and contributions to persons outside the family	.8	2.1	1.3	2.6	1.0	2.4
Miscellaneous items	.4	1.0	.2	1.2	1.0	1.7
Total current expenditure	100.0	100.0	100.0	100.0	100.0	100.0

There is a very marked increase in the proportion of expenditures allotted to transportation with increase in the consumption level of the Detroit families studied which strikingly indicates the appeal of the motor car. The percentage spent for transportation rose from 5.9 percent at the lowest level analyzed in Detroit to 15.9 percent at the highest level. There was a great increase in the proportion of the families buying second-hand automobiles with the group spending more than $500 per consumption unit, and in the proportion buying new automobiles with the group spending more than $700 per consumption unit.

The very gradual increase in expenditures for the goods and services grouped under the heading "Recreation" is perhaps accounted for by the fact that at least some of the expenditures for transportation at the higher consumption levels might be charged to recreation, if it were possible to charge all the family's trips to either recreation or work. Such a cost accounting would obviously be impractical.

Expenditures for furnishings and household equipment showed a much less sensitive response to increases in economic resources than expenditures for automobiles, but the proportion spent for house-furnishings increased from 2.0 percent of the total to 5.0 percent.

The generosity of the families studied is eloquently attested to by the rapidly rising percentage of expenditures spent for gifts and contributions to persons outside the family, as the consumption level rises.

Table 6.—Household Facilities and Equipment of Renting, and Home-Owning Families at Different Consumption Levels in Detroit, 1934–35

Equipment	Under $300	$300 and under $400	$400 and under $500	$500 and under $600	$600 and under $700	$700 and over	Total
Renters							
	Families with annual expenditure per consumption unit of—						
Number of families	47	67	76	81	50	102	423
Percent of families having—							
Inside flush toilets	95.7	98.5	98.7	100.0	98.0	100.0	98.8
Running hot water inside dwelling	83.0	95.5	96.1	96.3	96.0	94.1	93.9
Electric lights	100.0	100.0	98.7	100.0	100.0	100.0	99.8
Gas or electric cooking fuel	89.4	97.0	100.0	98.8	100.0	99.0	97.9
Mechanical refrigerator	8.5	14.9	23.7	42.0	36.0	63.7	35.0
Ice refrigerator	78.7	79.1	75.0	55.5	64.0	35.3	61.7
No refrigerator	12.8	6.0	1.3	2.5	.0	1.0	3.3
Telephone	2.1	7.5	13.2	24.7	34.0	34.3	20.6
Central heating	76.6	86.6	85.5	91.4	90.0	97.1	89.4
Inside flush toilets, running water inside dwelling, electric lights, and gas or electricity as kitchen fuel	76.6	92.5	92.1	96.3	96.0	94.1	92.0
Home owners							
Number of families	28	36	45	20	25	23	177
Percent of families having—							
Inside flush toilets	92.9	97.2	93.3	100.0	100.0	95.7	95.5
Running hot water inside dwelling	85.7	91.7	88.9	100.0	100.0	95.7	92.1
Electric lights	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gas or electric cooking fuel	92.9	97.2	97.8	100.0	100.0	100.0	97.7
Mechanical refrigerator	21.4	11.1	24.4	25.0	36.0	60.9	28.3
Ice refrigerator	64.3	77.8	66.7	70.0	60.0	34.8	63.8
No refrigerator	14.3	11.1	8.9	5.0	4.0	4.3	7.9
Telephone	14.3	16.7	26.7	30.0	40.0	65.2	29.9
Central heating	75.0	88.9	91.1	70.0	100.0	95.7	87.6
Inside flush toilets, running water inside dwelling, electric lights, and gas or electricity as kitchen fuel	82.1	88.9	88.9	100.0	100.0	87.0	90.4

Table 7.—Household Facilities and Equipment of Renting and Home-Owning Families at Different Consumption Levels, in 3 Michigan Cities, 1934–35

Equipment	Renters			Home owners		
	Grand Rapids	Lansing	Marquette	Grand Rapids	Lansing	Marquette
Annual expenditure per consumption unit of less than $400:						
Number of families	48	36	44	40	24	41
Percent of families having—						
Inside flush toilets	91.7	91.7	97.7	95.0	83.3	95.1
Running hot water inside dwelling	56.3	63.9	45.5	80.0	75.0	56.1
Electric lights	100.0	97.2	100.0	97.5	100.0	100.0
Gas or electric cooking fuel	85.4	58.3	40.9	82.5	83.3	46.3
Mechanical refrigerator	10.4	8.4	15.9	15.0	8.4	4.9
Ice refrigerator	77.1	58.3	4.6	80.0	70.8	12.2
No refrigerator	12.5	33.3	79.5	5.0	20.8	82.9
Telephone	8.3	5.6	36.4	20.0	4.2	53.7
Central heating	62.5	88.9	40.9	87.5	95.8	68.3
Inside flush toilets, running water inside dwelling, electric lights, and gas or electricity as kitchen fuel	56.3	44.4	27.3	70.0	62.5	39.0
Annual expenditure per consumption unit of $400 and over:						
Number of families	58	53	31	49	33	32
Percent of families having—						
Inside flush toilets	96.6	94.3	96.8	95.9	97.0	100.0
Running hot water inside dwelling	77.6	83.0	83.9	95.9	87.9	78.1
Electric lights	98.3	100.0	100.0	100.0	100.0	100.0
Gas or electric cooking fuel	89.7	90.6	77.4	100.0	100.0	62.5
Mechanical refrigerator	25.9	37.7	12.9	26.5	3.0	21.9
Ice refrigerator	65.5	60.4	29.0	65.3	94.0	31.2
No refrigerator	8.6	1.9	58.1	8.2	3.0	46.9
Telephone	31.0	20.8	67.7	44.9	48.5	84.4
Central heating	75.9	92.5	87.1	95.9	100.0	75.0
Inside flush toilets, running water inside dwelling, electric lights, and gas or electricity as kitchen fuel	74.1	79.2	71.0	91.8	87.9	53.1
All families:						
Number of families	106	89	75	89	57	73
Percent of families having—						
Inside flush toilets	94.3	93.3	97.3	95.5	91.2	97.3
Running hot water inside dwelling	67.9	75.3	61.3	88.8	82.5	65.8
Electric lights	99.1	98.9	100.0	98.9	100.0	100.0
Gas or electric cooking fuel	87.7	77.5	56.0	92.1	93.0	53.4
Mechanical refrigerator	18.9	25.8	14.7	21.3	5.3	12.3
Ice refrigerator	70.7	59.6	14.7	71.9	84.2	20.6
No refrigerator	10.4	14.6	70.6	6.8	10.5	67.1
Telephone	20.8	14.6	49.3	33.7	29.8	67.1
Central heating	69.8	91.0	60.0	92.1	98.2	71.2
Inside flush toilets, running water inside dwelling, electric lights, and gas or electricity as kitchen fuel	66.0	65.2	45.3	82.0	77.2	45.2

Savings and Debt

FAMILIES in the large cities are apparently more often forced to live beyond their means than similar families in the smaller cities.

Forty-one percent of the families studied in Detroit, 45 percent in Grand Rapids, and 33 percent in Lansing had a net decrease in assets or increase in liabilities during a period of a year, while only 20 percent of the families studied in Marquette had a net decrease in assets or increase in liabilities.

Conversely, 57 percent of Detroit families, 52 percent of Grand Rapids families, 62 percent of Lansing families and 77 percent of Marquette families had, over a period of a year, a net increase in assets or net decrease in liabilities. More families at the highest economic level had a net decrease in assets or increase in liabilities than families at the lowest level, and fewer families at the upper level had saved than families at the lower level. These results are partly

due to the method of classification which, since it is based on total expenditures rather than total income, places a family borrowing and spending large sums in a higher expenditure-per-consumption-unit group than a similar family spending only its current income.

Table 8.—Net Increase or Decrease in Family Assets and Liabilities of 1,089 Families in 4 Michigan Cities in 1934–35

City, and annual expenditure per consumption unit	Number of families	Families having decrease in assets or increase in liabilities or both		Families having net increase in assets or decrease in liabilities or both	
		Number	Percent	Number	Percent
Detroit:					
Under $300	75	22	29.3	51	68.0
$300 and under $400	103	38	36.9	62	60.2
$400 and under $500	121	54	44.6	67	55.4
$500 and under $600	101	34	33.7	64	63.4
$600 and under $700	75	31	41.3	40	53.3
$700 and over	125	64	51.2	57	45.6
Total	600	243	40.5	341	56.8
Grand Rapids:					
Under $400	88	34	38.6	51	58.0
$400 and over	107	54	50.5	51	47.7
Total	195	88	45.1	102	52.3
Lansing:					
Under $400	60	15	25.0	43	71.7
$400 and over	86	33	38.4	48	55.8
Total	146	48	32.9	91	62.3
Marquette:					
Under $400	85	15	17.6	66	77.6
$400 and over	63	15	23.8	48	76.2
Total	148	30	20.3	114	77.0

RECENT PUBLICATIONS OF LABOR INTEREST

May 1936

Cooperative Movement

Consumer cooperation in America: Democracy's way out. By Bertram B. Fowler. New York, Vanguard Press, 1936. 305 pp.

Consumers' cooperation in the United States. By M. R. Bendiner. Washington, Editorial Research Reports, 1013 Thirteenth St., NW., 1936. 17 pp. (Vol. I, 1936, No. 14.)

Summary of development of local and wholesale cooperation by consumers, including résumé of legislation affecting the movement.

The cooperative challenge to American business. By Hector Lazo. Washington, Cooperative Food Distributors of America, 1104 National Press Bldg., 1936. 31 pp.

An appraisal and discussion of the cooperative movement, particularly consumers' cooperation, from the viewpoint of its probable effect on profit business.

Cooperative democracy through voluntary association of the people as consumers. By James Peter Warbasse. New York, Harper & Bros., 1936. 285 pp. (3d edition.)

"A discussion of the cooperative movement, its philosophy, methods, accomplishments, and possibilities, and its relation to the State, to science, art, and commerce, and to other systems of economic organization", by the president of the central federation of the consumers' cooperative associations, The Cooperative League of the U. S. A.

Fundamentals of consumer cooperation. By V. S. Alanne. Minneapolis, Northern States Cooperative League, 1936. 120 pp., chart.

Revision of a previous edition of a booklet intended for study groups, educational committees of cooperative societies, and similar organizations.

Cooperative marketing of agricultural products. By Ward W. Fetrow. Washington, U. S. Farm Credit Administration, Cooperative Division, 1936. 106 pp., maps, illus. (Bul. No. 3.)

Describes in summary fashion the cooperative marketing of cotton, dairy products, fruits, vegetables, nuts, grain, livestock, poultry, eggs, tobacco, wool and mohair, and miscellaneous farm products; also gives in most cases statistics covering the 1934–35 marketing season.

Early developments in cooperative cotton marketing. By O. W. Herrmann and Chastina Gardner. Washington, U. S. Farm Credit Administration, Cooperative Division, 1936. 46 pp., illus. (Circular No. C–101.)

General discussion and historical accounts of individual cotton-marketing organizations.

List of bulletins of the agricultural experiment stations for the calendar years 1933 and 1934. By Catherine E. Pennington. Washington, U. S. Department of Agriculture, 1936. 81 pp. (Miscellaneous Publication No. 232.)

Includes a number of publications relating to cooperative marketing.

Permanent sources of cooperative credit for agriculture. By W. I. Myers. Washington, U. S. Farm Credit Administration, 1935. 21 pp. (Reprint of address delivered before annual meeting of the Mortgage Bankers Association, French Lick, Ind., October 1935.)

Kansas factories and workshops, 1935. Topeka, Commission of Labor and Industry, 1936. 116 pp.
Directory of Kansas industrial enterprises, which includes cooperative associations.

A plan for a league of cooperative department stores—organization procedure. Proposed by Edward A. Filene. New York, Consumer Distribution Corporation, 205 East 42d Street, 1936. 6 pp.

Statistique des sociétés coopératives du royaume de Bulgarie, 1933. Sofia, Direction générale de la Statistique, 1936. 69 pp.
A report (entirely statistical) covering the various types of cooperative societies in Bulgaria. The data relate to the year 1933. Printed in Bulgarian, with a French translation of the table of contents and French translations of most of the table heads.

Notice sur l'ancienne maison Godin. Guise (Aisne), France, Société du Familistère de Guise, 1926 [revised to 1934]. 109 pp., illus.
A revision giving data through 1934 of a booklet issued in 1926 on this oldest of workers' productive societies, which became cooperative in 1880 and is still in successful operation. An account of this society was given in the August 1930 issue of the Monthly Labor Review (p. 116).

Report of the Irish Agricultural Organization Society, Ltd., for the year ending March 31, 1935. Dublin, 84 Merrion Square, c. 17, 1936. 57 pp.
Contains data on the various types of cooperative societies in Ireland.

Rapports et comptes sur l'activité des organes de l'Union suisse des coopératives de consommation (U. S. C.) Bâle en 1935. Basel, 1936. 107 pp.
Report of the Swiss Union of Consumers' Cooperative Societies for 1935.

La situation des coopératives de consommation en U. R. S. S. à la fin de 1935. (In Revue des Études Coopératives, Paris, Jan.–Mar. 1936, pp. 154–171.)
Reviews the treatment of cooperative societies under the Soviets, including the order of September 1935 by which the urban societies were abolished as part of the cooperative movement and were taken over as a Government agency.

Economic and Social Problems

Alien Americans: A study of race relations. By B. Schrieke. New York, Viking Press, 1936. 208 pp.
The subjects discussed include: The Chinese and Japanese in California; Mexicans and Indians; America and the alien; the South and the Negro; Negro education; and prejudice or progress. A note on Filipino immigration and a bibliography are appended.

A quarter century of progress in the field of race relations, 1910–1935. New York, National Urban League, 1133 Broadway, 1935. 31 pp., maps, charts, illus.
A brief history of the National Urban League, which was formed for the promotion of social work among Negroes, was published in the January 1936 issue of the Monthly Labor Review.

California's farm labor problems. (In The Commonwealth—official journal of the Commonwealth Club of California—Part 2, San Francisco, April 7, 1936, pp. 153–196.)
A collection of reports and recommendations concerning farm labor, presented by the agricultural section of the club at a meeting on December 12, 1935.

The effects of the depression on wage earners' families—a second survey of South Bend, Ind. By Harriet A. Byrne. Washington, U. S. Women's Bureau, 1936. 31 pp. (Bul. No. 108.)
This survey was made during the months August to November 1932 and was confined to South Bend and Mishawaka households which had been visited by agents of the Women's Bureau in the 1930 survey. Findings on changes in employment and earnings and in the social and economic status of the families covered are presented.

Occupational characteristics of workers on relief. By E. B. Mittelman. Salem, Oregon, State Relief Committee in cooperation with the Federal Emergency Relief Administration, 1936. 106 pp., charts.
The industrial background of the study is given in the first chapter, including statistics of employment and wages for Oregon and for the city of Portland,

1929–33. The remaining chapters deal with the personal and occupational characteristics of Portland's relief population, the extent of dependency not due to the industrial depression, and the length of time dependents were on relief.

The State and the standard of living. By Gertrude Williams. London, P. S. King & Son, Ltd., 1936. 354 pp.

Discusses the changes in social philosophy which have given rise to the social services and benefits—such as old-age pensions, workmen's compensation for industrial accidents, insurance against sickness, unemployment, etc.—that have a direct bearing on the standard of living of the workers.

A statistical survey of public opinion regarding current economic and social problems as reported by newspaper editors in the first quarter of 1936. New York, National Industrial Conference Board, Inc., 247 Park Avenue, 1936. 56 pp. (Study No. 222.)

A study based on the premise that since newspaper and farm-journal editors throughout the country are constantly in touch with public opinion in their communities they are more likely than any other group to have direct and adequate knowledge of the trend of public opinion upon current economic and social questions. The data are given in a series of tables showing the replies to a questionnaire asking for opinions on compulsory unemployment insurance and old-age pensions; on cost and powers of Government, including increase in the public debt and in taxes, Federal unemployment relief, price increases, Government loans, Government ownership of public utilities, etc.; and on Government and labor policies, including compulsory union membership and Government fixing of wages and hours.

Report of the Milbank Memorial Fund for the year ended December 31, 1935. New York, 40 Wall Street, 1936. 72 pp.

The subjects covered in the report include the activities of the fund in the fields of public health and medicine, education, population problems, and social welfare.

The coal scuttle. By Joseph Jones. London, Faber & Faber, Ltd., 1936. 168 pp.

An analysis of the British coal-mining industry and its difficulties from the operative's point of view, written by the president of the Mineworkers' Federation of Great Britain. The analysis covers the physical and economic organization of the industry, working and living conditions and actual earnings of mine workers, unemployment, and plans and prospects for the reorganization of the coal industry of Great Britain.

Textile industry in the United Kingdom, France, Germany, Italy, and Japan. By Ivan V. Emelianoff. Washington, U. S. National Recovery Administration, Division of Review, 1936. 108 pp., mimeographed. (Work Materials No. 28.)

Reviews the importance of the textile industry in each country, including a section on labor conditions in each instance.

Economic and social conditions of the Philippine Islands, 1935. Manila, Department of Agriculture and Commerce, 1935. 84 pp. (Special supplement to Philippine Statistical Review, Vol. 2.).

Includes data on average daily wages and on unemployment in 1934. The figures on wages are reproduced in this issue of the Monthly Labor Review.

Education

Adult education in action. Edited by Mary L. Ely. New York, American Association for Adult Education, 60 East 42d Street, 1936. 480 pp.

A collection of 160 articles, all condensed from the Journal of Adult Education (publication of which was begun in February 1929), with the one exception of a history of the Chautauqua movement. The contributions in part I set forth the need and the objectives of adult education; in part II the operation of the movement is described; part III treats of teachers, students, content of courses, method, and educational service stations; part IV discusses questions raised by critics. A list of suggested titles for supplementary reading is appended.

Vocational guidance and education for Negroes. Edited by Franklin J. Keller. (In Occupations, the Vocational Guidance Magazine, New York, March 1936, pp. 485–576.)

Papers and addresses delivered at a conference at Atlanta University, December 9–14, 1935.

Education in Czechoslovakia. By Severing K. Turosienski. Washington, U. S. Office of Education, 1936. 181 pp., illus. (Bulletin, 1935, No. 11.)

A comprehensive study and analysis of the present educational system, including teachers' organizations and their salaries and pensions, physical training, adult education, trade schools and special trade courses, and students' accident insurance.

Employment and Unemployment

Employment, earnings, production, and prices, 1932 to January 1936. Washington, U. S. Bureau of Labor Statistics, 1936. 38 pp., charts. (Serial No. R. 353, reprint from April 1936 Monthly Labor Review.)

The employment situation in the Pennsylvania anthracite region. Washington, U. S. Works Progress Administration, Division of Research, Statistics, and Finance, 1935. Various paging, map, charts.

Statistics of population, production, wages, and employment, bearing on the anthracite situation, are brought together from various sources. Among the subjects discussed is the growing "bootleg" coal traffic.

The incidence and duration of unemployment among new applicants, Philadelphia State Employment Office, 1934. By Gladys L. Palmer. Philadelphia, University of Pennsylvania, Industrial Research Department, 1936. 33 pp. (Philadelphia Employment Market Studies, Special report A–7.)

The highest average duration of unemployment for men is reported for the unskilled group, particularly for laborers, while among the semiskilled and skilled men covered in the manufacturing and mechanical industries, the building and construction workers had the greatest average duration of joblessness.

Labor requirements in cement production. By Bernard H. Topkis. Washington, U. S. Bureau of Labor Statistics, 1936. 14 pp. (Serial No. R. 358, reprint from March 1936 Monthly Labor Review.)

Not relief, but recovery possibilities in Nevada. Report of the Governor's Emergency Committee on Employment in Nevada. Carson City, 1935. 21 pp.

Report of a committee originally appointed in 1930 to study employment conditions in the State, and continued since that time to study changes in conditions and submit its findings, which are given in the present report.

Proceedings of 23d annual convention of the International Association of Public Employment Services, United States and Canada, Asheville, N. C., October 6–7, 1935. Washington, U. S. Department of Labor, Division of Labor Standards, 1936. 62 pp. (Bul. No. 5.)

Jobs or the dole? By Neal B. De Nood. Chicago, University of Chicago Press, 1935. 53 pp., illus.

One of a series of "American primers" prepared under a grant from the General Education Board. In this pamphlet the problem of unemployment is discussed from various angles in nontechnical language.

Seasonal variations in employment. By Christopher Saunders. New York, Longmans, Green and Co., 1936. 311 pp., charts.

A detailed study of the extent and causes of seasonal fluctuations in the principal British industries and their effects on unemployment, prepared under the auspices of the Economic Research Section of the University of Manchester, England. The appendixes include a bibliography and statistical and graphic data covering the years 1924 to 1932.

Rapport relatif au fonctionnement de l'office départemental du placement et de la statistique du travail et à l'organisation des secours de chômage dans le département de la Seine, 1934. Paris, 1935. 359 pp., charts.

This report for 1934 of the employment office of the Department of the Seine shows number of placements, by occupation, in different industries, and the extent of unemployment and measures taken to counteract it. The appendixes contain the text of pertinent laws, decrees, resolutions, and orders issued during the year.

Housing

Second annual report of the Federal Housing Administration, for the year ending December 31, 1935. Washington, 1936. 52 pp., charts.

Statistics covering financial operations are shown, including information on the amounts loaned for home modernization, broken down by size of loan and kind of property improved. There are also brief descriptions of the educational and research activities of the Federal Housing Administration.

Proceedings of joint national conference on housing, Washington, D. C., October 1935. Chicago, National Association of Housing Officials, 850 East 58th Street, 1936. 101 pp.

Real property inventory, New Jersey, 1934. Newark, State Housing Authority, [1936?]. 21 pp., mimeographed.

Salient facts of substandard housing conditions in New Jersey, by housing tract, city, and county, brought together from the real property inventory made by the Federal Government in 1934.

Report of the New York State Board of Housing. Albany, 1936. 76 pp. (Legislative Document, 1936, No. 41.)

Reviews briefly the work of the five city housing authorities set up in New York State, and gives a statistical analysis of the economic status of tenants, size of apartments, and distribution of building costs, for a sample group of three low-cost housing projects in New York City.

Dollars and houses: An economic brief on low-rent housing in relation to Government subsidies and private capital. By Evans Clark. New York, National Public Housing Conference, 112 East 19th Street, [1936?]. 16 pp.

Housing finance: Report on subsidies for rehousing in urban areas. By Council for Research on Housing Construction. London, P. S. King & Son, Ltd., 1935. 34 pp., charts.

Tabular statements illustrating the general financial effects of the new subsidies to housing provided by legislative action in Great Britain in 1935. The factual data and estimates are furnished for the guidance of local authorities.

La question de l'habitation urbaine en Pologne. Prepared under the direction of Jan Strzelecki. Geneva, League of Nations, Health Organization, 1936. 228 pp., maps, charts. (In French.)

A survey of the housing situation in Poland, covering legislation and the national policy, the State program for housing construction, measures of the State to encourage homebuilding, and statistics on density of present housing and wages of workmen in the building trades.

XVII Memoria de la Comisión Nacional de Casas Baratas, 1934–1935. Buenos Aires, 1936. 63 pp., illus.

Report of the activities of the Argentine Federal low-cost-housing organization for 1934 and the first quarter of 1935, with proposals for extension of its benefits.

Income

Income originating in nine basic industries, 1919–1934. By Simon Kuznets. New York, National Bureau of Economic Research, 1936. 24 pp., charts. (Bul. No. 59.)

In this preliminary publication of some of the results of a study of income by the National Bureau of Economic Research, one of the conclusions relating particularly to labor is that for the period covered there was a decline in the percentage share going to employees of income paid out. The share of entrepreneurs also declined, while there was a rise in the percentage share of dividends and interest. With regard to compensation of employees, the data indicate a decline in the percentage share paid to wage earners and a rise in the percentage share paid to salaried workers.

Industrial Accidents, Health, and Hygiene

Employment and accidents at coal mines in the United States, 1934. Washington, U. S. Bureau of Mines, 1936. 9 pp., charts, mimeographed. Health and Safety Statistics No. 232. (Preliminary report.)

Data on accidents from this report are given in this issue of the Monthly Labor Review.

Annual report of the Colorado Bureau of Mines, for the year 1934. Denver, 1935. 72 pp.

Statistics of injuries in the Colorado mining industry show 17 killed in 1934, as against 12 in 1933. Nonfatal injuries involving time loss of more than 14 days numbered 329 in 1934 and 235 in 1933; those involving time loss of less than 14 days amounted to 727 in 1934, as compared with 402 in 1933.

Hazard of igniting coal by electric circuits in mines. By H. B. Freeman. Washington, U. S. Bureau of Mines, 1936. 31 pp., diagrams, illus. (Technical Paper 568.)

Notes on testing the explosibility of coal dusts and a proposal to have an international test method. By George S. Rice and H. P. Greenwald. Washington, U. S. Bureau of Mines, 1936. 8 pp., chart, mimeographed. (Information Circular 6878.)

Preventing accidents by the proper use of permissible explosives. By D. Harrington and S. P. Howell. Washington, U. S. Bureau of Mines, 1936. 43 pp., charts, illus. (Technical Paper 567.)

Safety codes for the prevention of dust explosions. American standard approved by the American Standards Association. Washington, U. S. Bureau of Labor Statistics, 1936. 29 pp., illus. (Bul. No. 617, supplement to Bul. No. 562.)

Manual of information on safeguarding of hazardous machinery. Washington, U. S. Department of Labor, Division of Labor Standards, 1936. 15 pp., 56 supplementary plates.

Consists of a set of loose-leaf illustrations showing devices used for the protection of workers, accompanied by a pamphlet, "Some rules for the safeguarding of hazardous machinery", explaining the application of the devices illustrated.

Manual of medical care: Rules and regulations governing medical care provided in the home to recipients of home relief. New York, Temporary Emergency Relief Administration, 79 Madison Avenue, 1936. 56 pp.

The mortality from the principal cardiovascular-renal diseases. A study of the experience among the industrial policyholders of the Metropolitan Life Insurance Co., 1911 to 1930. New York, Metropolitan Life Insurance Co., [1936?]. 80 pp., charts. (Monograph 4 in a twenty-year mortality review.)

The five diseases—heart disease, chronic nephritis, cerebral hemorrhage, diseases of the arteries, and angina pectoris—grouped in this study are responsible for more than half the deaths in the United States at ages 45 and over. The analysis of the data relating to the mortality from these diseases shows the trends of these various conditions for each of the important age periods, for each sex, and for the white and colored races. Presentation of material such as this, it is said, may succeed in demonstrating the need for new programs of life conservation.

Report of the Director and financial report of the Saranac Laboratory for the Study of Tuberculosis, for the year ending September 30, 1935; reprints of scientific papers. Saranac Lake, N. Y., 1936. Various paging.

The scientific papers reprinted in this report are in the main studies of silicosis and asbestosis by the staff of the laboratory. The subjects covered include pneumonokoniosis; roentgenological appearances in silicosis and the underlying pathological lesions; good practice in combating dust hazards associated with mining operations; and the significance of silicosis in mining.

Twenty-first annual report of the National Society for the Prevention of Blindness, 1935. New York, 50 West Fiftieth Street, 1936. 16 pp., illus.

Contains brief statements of the eyesight-conservation efforts of the Society including its activities in the industrial field in preventing injuries to the eyes of workers.

Industrial Relations

Labor and the New Deal. By Louis Stark. Washington, Public Affairs Committee, National Press Building, [1936?]. 34 pp., chart. (Public Affairs Pamphlet No. 2.)

Traces the growth of labor legislation, showing that activities under the New Deal are not without precedent, and discusses forms of labor organization and problems of collective bargaining.

The National Labor Relations Act: Its constitutionality. By Charlton Ogburn. Washington, American Federation of Labor, 1935. 63 pp.

A brief by the counsel of the American Federation of Labor on the validity of the National Labor Relations Act and its applicability to the major industries, for the use of union members and officials.

Report of Anthracite Board of Conciliation. Hazleton, Pa., [1936?]. 553 pp. (Vol. XXII.)

Record of the action of the board on each of the grievances brought before it from June 20, 1934, to November 8, 1935.

Obtaining employee cooperation in meeting quality and economy standards. Outline of ideas presented at conference sponsored by Bureau of Industrial Relations, University of Michigan, Ann Arbor, March 6, 1936. 10 pp., mimeographed.

Strikes and lockouts in Canada and other countries during the year 1935. Ottawa, Department of Labor, 1936. 27 pp., charts. (Reprint from Labor Gazette, February 1936.)

Data from this publication are given in this issue of the Monthly Labor Review.

Stay-down miner. By Montagu Slater. London, Martin Lawrence, Ltd., 1936. 81 pp.

Narrative account of the "stay-down strike" of miners in South Wales during the fall of 1935 against the employment of members of a dual organization regarded by the mine workers as a company union.

A chacun sa chance. By Hyacinthe Dubreuil. Paris, Éditions Bernard Grasset, 1935. 324 pp.

A study of industrial relations, dealing with scientific management, cooperation, and profit sharing.

International Labor Conditions

Improvement of labor conditions on ships by international action. By William Gorham Rice, Jr., and W. Ellison Chalmers. Washington, U. S. Bureau of Labor Statistics, 1936. 23 pp. (Serial No. R. 373, reprint from May 1936 Monthly Labor Review.)

Labor conference of American States, Santiago, Chile, 1936. By Warren Irvin. Washington, U. S. Bureau of Labor Statistics, 1936. 5 pp. (Serial No. R. 364, reprint from March 1936 Monthly Labor Review.)

Labor Legislation

Proceedings of the third southern regional conference [on labor legislation], Columbia, S. C., January 20 and 21, 1936. Washington, U. S. Department of Labor, Division of Labor Standards, 1936. 34 pp., mimeographed.

Indice cronológico de la legislación social cubana. Comentarios por Jose Enrique de Sandoval. Habana, Imprenta y Papeleria de Rambla, Bouza y Compañia, 1935. 39 pp.

Brief summary of social legislation in Cuba and a chronological list of all Cuban social and labor legislation from May 2, 1899, up to September 30, 1935.

Labor Organizations

The case for industrial organization. Washington, Committee for Industrial Organization, 1936. 47 pp., illus. (Publication No. 4.)

Les organisations ouvrières, leurs compétences et leur rôle dans la Société des Nations et notament dans l'Organisation Internationale du Travail. By Alexandre Berenstein. Paris, Éditions A. Pedone, 13, rue Soufflot, 1936. 293 pp.

This study deals with the legal competency of labor organizations represented in the different organizations of the League of Nations. The author analyzes labor activities not only in the League but also in such agencies as the Permanent Court of International Justice at the Hague, the preparatory disarmament commissions, etc.

Minimum Wage

Minimum-wage legislation in the United States, as of January 1, 1936. Washington, U. S. Bureau of Labor Statistics, 1936. 12 pp. (Serial No. R. 362, reprint from March 1936 Monthly Labor Review.)

Planning

Bibliography of planning, 1928–1935. By Katherine McNamara. Cambridge, Mass., Harvard University Press, 1936. 233 pp. (Harvard City Planning Studies, Vol. X.)

Proceedings of the Southeastern Planning Conference, Savannah, Ga., December 4–5, 1935. Albany, Ga., National Resources Committee, [1935?]. 96 pp., map.
Addresses delivered at the conference, attended by representatives of Alabama, Georgia, Florida, and South Carolina. The purpose of the meeting was to bring together those interested in planning, to stimulate interest in such work, and to provide for an exchange of information and experience.

Planning under capitalism. By A. W. Rather. London, P. S. King & Son, Ltd., 1935. 199 pp.
Discusses the general problems involved in planning under capitalism, and the planning methods used in the British coal and electrical supply industries and in agriculture.

Prices and Cost of Living

Food consumption at different economic levels. By Faith M. Williams. Washington, U. S. Bureau of Labor Statistics, 1936. 6 pp. (Serial No. R. 375, reprint from April 1936 Monthly Labor Review.)

Money disbursements of wage earners and clerical workers in 11 New Hampshire communities. By Faith M. Williams. Washington, U. S. Bureau of Labor Statistics, 1936. 10 pp. (Serial No. R. 357, reprint from March 1936 Monthly Labor Review.)

Nankai index numbers, 1935 (of commodity prices at wholesale, cost of living, foreign exchange rates, and quantities and prices of imports and exports). Tientsin, Nankai University, Nankai Institute of Economics, January 1936. xi, 47 pp., charts.

Resale price maintenance in Great Britain, with an application to the problem in the United States. By Ewald T. Grether. Berkeley, University of California Press, 1935. 78 pp. (University of California Publications in Economics, Vol. II, No. 3.)
A study of the extent and the degree of success of manufacturers' control of retail prices in Great Britain through legislation and group action. Effectiveness of the enforcement procedure, and the attitude of large-scale retailers, such as cooperative societies and chain stores, toward price control, are discussed.

Relief Measures and Methods

Public welfare service in Kansas, 1934. Topeka, Kansas Emergency Relief Committee, 1935. 795 pp., charts, illus. **(Bul. No. 289.)**
Report on work done under different types of relief, including county work relief, general work relief, C. W. A., and special programs. One section relates to wage rates, labor relations, and complaints.

A study of public relief cases in Kansas covered by the Federal Social Security Act. Topeka, Kansas Emergency Relief Committee, 1935. 13 pp. (Bul. No. 288.)
Covers 16,915 dependent aged, 15,988 dependent children, and 962 blind persons eligible for aid.

Activities and accomplishments of the Work Division, Emergency Relief Administration for Mississippi, April 1, 1934, to July 1, 1935. Jackson, 1935. 121 pp., maps, charts, illus.; mimeographed.
Contains data on the various types of work projects, also on the self-help organizations in the State, women's work, labor relations, etc.

What price local poor relief? By Catherine M. Dunn. Chicago, American Public Welfare Association, 850 East 58th Street, 1936. 18 pp.
A study of four States east of the Mississippi—New Hampshire, Pennsylvania, Indiana, and Alabama—undertaken to determine what type of administration and personnel was assuming responsibility for the so-called "unemployables" who were being turned back to State and local authorities in the autumn of 1935.

Merseyside: The relief of the poor. Liverpool, England, University of Liverpool, Social Science Department, 1936. 24 pp.
This presentation of the relief problem in the vicinity of Liverpool includes a discussion of the relation of relief to the Unemployment Insurance Act of 1934.

Self-Help

Activities of Federally aided self-help cooperatives during 1935. Washington, U. S. Bureau of Labor Statistics, 1936. 13 pp. (Serial No. R. 361, reprint from March 1936 Monthly Labor Review.)

Digging for a new England: The cooperative farm for unemployed men. By John S. Hoyland. London, Jonathan Cape, 1936. 224 pp.

Accounts of various farms operated on a "self-help" basis by unemployed men, especially in England.

Social Security

Insecurity—a challenge to America: A study of social insurance in the United States and abroad. By Abraham Epstein. New York, Harrison Smith & Robert Haas, 1936. 821 pp. (3d edition.)

Revised to include the Federal Social Security Act.

State unemployment-insurance legislation as of January 1, 1936. Washington, U. S. Bureau of Labor Statistics, 1936. 5 pp. (Serial No. R. 347, reprint from February 1936 Monthly Labor Review.)

Unemployment insurance in the State of New York. By Herman Arnold Gray. (Reprint from New York University Law Quarterly Review, New York, November 1935.) 24 pp.

An exposition of the New York State unemployment insurance act, including coverage, benefits, claims procedure, administration, and relations with the Federal system.

Operation of Wisconsin's Unemployment Compensation Act. Madison, Industrial Commission of Wisconsin, Unemployment Compensation Department, January 1936. 23 pp.

A summary of the background and basic features of the Wisconsin law with the amendments passed in 1935. The act comes into full operation in July 1936.

Regulations 90 relating to the excise tax on employers under Title IX of the Social Security Act. Washington, U. S. Bureau of Internal Revenue, 1936. 66 pp.

The social security and relief problem in Kansas, calendar year 1936. Prepared for Committee on Social Security Assistance Features by Kansas Legislative Council. Topeka, 1936. 50 pp., mimeographed.

Analyzes the general relief problem in Kansas with a view to its integration with the social security program, probable costs, sources of funds, etc.

The social security program: Status of Kansas plans and analysis of provisions of State plans which have been approved by the Social Security Board. Prepared for Committee on Social Security Assistance Features, by Kansas Legislative Council. Topeka, 1936. 14 pp., mimeographed.

Security versus dependency: An outline of the functions of the Federal Social Security Act in relation to the State and counties, covering the general aspects of the public welfare program in the State of Washington. Olympia, Department of Public Welfare, 1936. 15 pp., mimeographed. (Monograph No. 11.)

Suggested State legislation for social security: Administrative organization; old-age assistance; aid to the needy blind; aid to dependent children. Chicago, American Public Welfare Association, 850 East 58th Street, 1935. 32 pp., charts.

Intended for the guidance of persons drafting State legislation on the enumerated subjects.

Practical aspects of unemployment insurance and old-age security. By John D. Black and others. New York, American Management Association, 330 West 42d Street, 1936. 51 pp. (Personnel Series No. 23.)

Old-age security. By Emerson P. Schmidt. Minneapolis, 1936. 32 pp. (University of Minnesota Day and Hour Series No. 14.)

Reprint of a lecture dealing with old-age pensions and retirement with special reference to the Minnesota old-age assistance act.

Report of Delaware Old Age Welfare Commission for the year 1935. Dover, 1936. 8 pp.

Report on operations under the State old-age pensions act for 1935.

Sixty-ninth annual report of the New York State Board of Social Welfare, for the year ended June 30, 1935. Albany, 1936. 240 pp. (Legislative Document, 1936, No. 22.)

Contains reports on public and private homes for aged, and on aid to blind and to dependent aged.

A summary of actuarial surveys of seventy local police and fire pension funds in New York State. By Albert H. Hall. Albany, State Conference of Mayors and Other Municipal Officials, Bureau of Training and Research, 1935. 26 pp., mimeographed. (Publication No. 34.)

Second annual report of the Old Age Pensions Board of Nova Scotia, for the year ending November 30, 1935. Halifax, 1936. 12 pp.

Rapport de la Commission Supérieure des Caisses Nationales d'Assurances en cas de décès et en cas d'accidents sur les opérations et la situation de ces deux caisses, 1934. Paris, 1935. 55 pp.

The report for 1934 of the French national accident and death insurance funds.

Wages and hours of labor

Index numbers of wages per hour, 1840 to 1934; Trend of real wages per hour, 1913 to 1934. Washington, U. S. Bureau of Labor Statistics, 1936. 3 pp. (Serial No. R. 366, reprint from March 1936 Monthly Labor Review.)

Union scales of wages and hours in selected trades, May 15, 1934, and May 15, 1935. Washington, U. S. Bureau of Labor Statistics, 1936. 25 pp. (Serial No. R. 376, reprint from April 1936 Monthly Labor Review.)

Covers the building, printing, and bakery trades, longshoremen, street-railway employees, and motor-truck drivers.

Entrance rates paid to common labor, July 1935. Washington, U. S. Bureau of Labor Statistics, 1936. 9 pp. (Serial No. R. 365, reprint from March 1936 Monthly Labor Review.)

Report of the special commission on wages and hours in the fur-manufacturing industry. By Paul Abelson, Willard E. Atkins, and H. LaRue Frain. Washington, U. S. National Recovery Administration, Division of Review, 1936. Various paging, charts, mimeographed. (Work Materials No. 6.)

Includes descriptions of occupations and information on wages and hours in a small sample of fur-working firms in and outside New York City. Census data and the findings of the fur commission in its survey of October 1934 are drawn upon.

Wages, hours, employment, and annual earnings in the motor-vehicle industry, 1934. By N. A. Tolles and M. W. La Fever. Washington, U. S. Bureau of Labor Statistics, 1936. 33 pp. (Serial No. R. 356, reprint from March 1936 Monthly Labor Review.)

Regulation of industrial relations in Australia. By Carroll B. Spencer. Washington, U. S. National Recovery Administration, Division of Review, 1936. 23 pp. (Work Materials No. 60.)

A discussion of the regulation of wages and working hours by the Australian Government. Comparison is made of the powers of government in fixing standards in Australia and the United States.

Report on an enquiry into wages, hours of work, and conditions of employment in the retail trade of some towns of the Bombay Presidency. Bombay, Labor Office, 1936. 99 pp.

Embodies the results of an investigation carried on for four months, from the middle of August to the middle of December 1935, covering 3,506 retail shops employing 10,212 assistants.

Wage rates in Shanghai. Greater Shanghai, Bureau of Social Affairs, 1935. xii, 178 pp., charts. (In Chinese and English.)

Discusses the wage problem, the wage investigations of the Bureau of Social Affairs, the collection and compilation of wage statistics, and making of index numbers, and gives an analysis of wage data, 1930–34.

The miner's two bob. Edited by W. H. Williams. London, Martin Lawrence, Ltd., 1936. 98 pp.

Four articles on wages and working conditions of British miners, and the organization of the industry, published in support of the recent demand of the miners for an increase in wages of 2s. a day. One chapter presents a history of the miners' union, the Mine Workers' Federation of Great Britain.

Welfare Work

Miners' Welfare Fund, 1934. Thirteenth annual report of the Miners' Welfare Committee for the year 1934, and eighth annual report of the Selection Committee, Miners' Welfare National Scholarship Scheme. London, Mines Department, 1935. 54 pp., diagrams, illus.

Reviewed in this issue.

Women in Industry

Women in Tennessee industries; A preliminary report on wages and hours. Washington, U. S. Women's Bureau, 1936. 15 pp., mimeographed.

Workmen's Compensation

Methods of financing workmen's compensation administrations and funds. By Marshall Dawson. Washington, U. S. Bureau of Labor Statistics, 1936. 14 pp. (Serial No. R. 360, reprint from March 1936 Monthly Labor Review.)

Workmen's compensation legislation in the United States and Canada, 1935. Washington, U. S. Bureau of Labor Statistics, 1935. 25 pp. (Serial No. R. 367, reprint from May 1936 Monthly Labor Review.)

Proceedings of the Casualty Actuarial Society, New York, November 15, 1935. New York, 90 John Street, [1936?]. 211 pp., charts.

The subjects of the papers presented at this meeting include: Social insurance and the Constitution; Occupational disease cover in New York; Group rate levels in workmen's compensation insurance; and The experience rating plan as applied to workmen's compensation risks.

Sixteenth annual report of the North Dakota Workmen's Compensation Bureau, for the fiscal year ending June 30, 1935. Bismarck, [1935?]. 19 pp., chart.

Financial statement of workmen's compensation fund, and analysis of claims filed, by cause and nature of injury. Liability incurred on 6,612 claims filed in 1934 amounted to $528,673, and on 2,955 claims filed in the first six months of 1935, to $205,656.

Statistics of compensation and proceedings under the Workmen's Compensation Acts, and the Employers' Liability Act, 1880, in Great Britain during the year 1934. London, Home Office, 1936. 32 pp. (Cmd. 5077.)

Report for 1935 of Workmen's Compensation Board of Nova Scotia. Halifax, 1936. 34 pp.

The total number of accidents of all kinds reported to the Board in 1935 was 9,225 as against 8,580 in the previous year; 63 fatal injuries were reported for 1935. The principal causes of accidents compensated in 1935 were rolling, falling, and flying objects, which accounted for 2,229 injuries, including 17 deaths; tools, which accounted for 1,054 injuries, including 1 death: and falls of persons, which resulted in 801 injuries, including 2 deaths.

Youth Problems

Survey of 10,000 relief families in New Jersey: Juniors in need. [Trenton], N. J., State Emergency Relief Administration, February 1936. 23 pp., mimeographed. (Series B, Report No. 1, preliminary.)

The number of persons in the 16 to 25 age group included in the 10,000 families covered in the investigation was 6,553, of whom 4,763 were unmarried children living at home. An analysis is made of the characteristics of such young persons as to education and adaptability to occupational opportunities.

Youth—leisure for living. By Katherine Glover. Washington, U. S. Office of Education, 1936. 126 pp. (Bulletin, 1936, No. 18—II.)

This pamphlet, which is one of a series of seven bulletins on youth problems, includes sections on youth and the new leisure, new recreation developments, suggestive community programs, recreation adapted to special needs, specific activities, and miscellaneous suggestions and projects.

Youth on relief. Washington, U. S. Works Progress Administration, Division of Social Research, 1936. 30 pp., charts.

A booklet of pictographs showing the usual occupations, education, places of residence, number, and other data concerning youth on relief. Most of the information applies to May 1935 conditions.

Statistics of youth on relief. Prepared by O. L. Harvey and Mapheus Smith. Washington, U. S. Works Progress Administration, Division of Social Research, 1936. 31 pp. (Research Bulletin, Series I, No. 16.)

Youth without jobs. A review of changing conditions affecting employment, and a fresh sampling of Y. M. C. A. experience in service to the unemployed. By E. C. Worman. New York, Association Press, 347 Madison Avenue, 1936. 110 pp.

A survey of certain social, economic, and political factors in unemployment relief, a statement of Y. M. C. A. aims in connection with the needs of unemployed youth, and an appraisal of programs adopted by local associations.

Youth movements here and abroad. A selected bibliography with a directory of leading American movements, compiled by Marguerita P. Williams. New York, Russell Sage Foundation, 130 East 22d Street, February 1936. 8 pp. (Bul. No. 135.)

General Reports

Annual report of Lake Carriers' Association, 1935. Cleveland, 1936. 162 pp.

Brief résumés are given of employment and labor relations and of the work of the welfare plan committee in providing assembly halls at the leading ports, opportunities for education in the Lake Carriers' School, savings plans for the promotion of thrift, and safety work through the ship safety committees.

Economic development of the cotton-textile industry in the United States, 1910–1935. A selected bibliography, compiled by Emily L. Day and Rachel P. Lane. Washington, U. S. Bureau of Agricultural Economics, September 1935. 137 pp., mimeographed. (Agricultural Economics Bibliography No. 57.)

Among the subjects covered by the references are wages and hours of labor, productivity of labor, employment, strikes, work of Textile Labor Relations Board, labor organization, workers' housing, and production.

Annuaire statistique de l'Algérie, 1934. Alger, Service Central de Statistique, 1935. 629 pp.

This Algerian yearbook for 1934 contains statistics on cooperation, trade-union organization, employment services, strikes, industrial accidents, and mutual aid societies.

Labor report, Australia, 1934. Canberra, Bureau of Census and Statistics, 1936. 177 pp., chart.

Presents detailed statistics for 1934 and earlier years of wages and hours, prices, employment, unemployment, employment service, industrial accidents, industrial disputes, and labor organizations.

Statistical register of Western Australia for the year 1934-35 and previous years: Parts XI and XII, Local government and miscellaneous. Perth, Office of Government Statistician, 1935. 39 pp.

Contains a section on operation of the State Labor Bureau, including occupational and wage statistics.

La Belgique en 1935. Louvain, Belgium, Institut des Sciences Économiques, 1936. 237 pp. (Bulletin de l'Institut des Sciences Économiques, February 1936.)

A collection of articles summarizing various economic and social developments and conditions in Belgium in 1935. The subjects covered include labor legislation; the labor market; unemployment and production in textile mills; and employment, wages, family allowances, mechanization, and production in coal mines. There is also an article on the economic situation in the Belgian Congo in 1935.

Man-power in China. By Dorothy Johnson Orchard. New York, Academy of Political Science, 1936. (Reprint from Political Science Quarterly, December 1935, pp. 561–583, and March 1936, pp. 1–35.)

Discusses labor turn-over, coolie labor, woman and child labor, home work, apprentice compensation, wages, working hours, scarcity of skilled labor, and other phases of the labor situation in China.

A főváros polgári népességének szociális és gazdasági viszonyai. Budapest, Hungary, Statisztikai Hivatala, 1935. 1119 pp. (In Hungarian and German.)

Statistical information in regard to social and economic conditions in Budapest, Hungary, including housing, employment, wages, cost of living, unemployment, etc. While some of the figures given in the volume are for as late a date as 1933, most of them are for earlier years.

New Zealand statistical report on prices, wage rates and hours of labor, unemployment, industrial accidents, etc., for the year 1934. Wellington, Census and Statistics Office, 1935. 102 pp.

Annual report of the Governor General of the Philippine Islands, 1934. Washington, 1936. 20 pp. (House Document No. 411, 74th U. S. Cong., 2d sess.)

Brief sections of this report are devoted to social service, slum clearance, and unemployment.

Statistical year book of Province of Quebec, 1935. Quebec, Department of Municipal Affairs, Trade, and Commerce, 1936. 452 pp., charts.

Contains data on wages in agriculture, agricultural cooperative associations, prices and cost of living, strikes, unemployment relief, placement work of employment exchanges, industrial accidents and compensation therefor, and people's banks (credit unions).

Statistisk årsbok för Stockholms stad, 1935, jämte register 1931–1935. Stockholm, Statistiska Kontor, 1935. 258 and 47 pp., maps, charts.

Among the subjects covered are prices and cost of living, wages, unemployment, work of employment offices, public assistance, housing, and cooperative societies. Printed in Swedish, with French translations of the table of contents and table heads. An index of the issues of the yearbook from 1931 to 1935 is appended.

Sweden year-book, 1936. Stockholm, Almquist & Wiksell Co., Ltd., 1935. 367 pp., maps, illus.

Presents information on the government, resources, industries, and institutions of Sweden, and on social and economic conditions in that country. There are brief discussions of labor and employer organizations, regulation of the labor market, social insurance, and the cooperative movement.

Report of the Department of Labor, Union of South Africa, for the year ended December 1934. Pretoria, 1936. 84 pp.

Includes data on employment, unemployment and unemployment relief measures, wages, labor relations, industrial accidents, apprenticeship, and working conditions, and lists of labor and employer organizations.

Final report on the fourth census of production of the United Kingdom (1930): Part V, General Report. London, Board of Trade of Great Britain, 1935. 175 pp.

Summary volume of the 1930 census of production in the United Kingdom bringing together the material presented for specified industries and occupations in the preceding four volumes. In addition data are given on volume and index of production, regional distribution of industries, and comparative material on employment and wages in 1924 and 1930.

UNITED STATES DEPARTMENT OF LABOR
Frances Perkins, Secretary
BUREAU OF LABOR STATISTICS
Isador Lubin, Commissioner

✦

Monthly Labor Review

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January to June 1936

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1937

DEPOSITED BY THE
NITED STATES OF AMERICA

MAR 19 1937

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*No. 191. Collective bargaining in the anthracite coal industry. [1916.]
*No. 198. Collective agreements in the men's clothing industry. [1916.]
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*No. 468. Trade agreements, 1927.

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*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
*No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
*No. 139. Michigan copper district strike. [1914.]
*No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
*No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
No. 233. Operation of the Industrial Disputes Investigation Act of Canada. [1918.]
*No. 255. Joint industrial councils in Great Britain. [1919.]
*No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
*No. 287. National War Labor Board: History of its formation and activities, etc. [1921.]
*No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
*No. 481. Joint industrial control in the book and job printing industry. [1928.]

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*No. 313. Consumers' cooperative societies in the United States in 1920.
*No. 314. Cooperative credit societies (credit unions) in America and in foreign countries. [1922.]
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*No. 531. Consumers', credit, and productive cooperative societies, 1929.
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No. 606. Organization and management of cooperative gasoline and oil associations (with model bylaws). [1934.]
No. 608. Organization and management of cooperative housing associations (with model bylaws). [1934.]
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*No. 109. Statistics of unemployment and the work of employment offices [in the United States]. [1913.]
*No. 172. Unemployment in New York City, N. Y. [1915.]
*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
*No. 195. Unemployment in the United States. [1916.]
*No. 196. Proceedings of Employment Managers' Conference, held at Minneapolis, Minn., January 19 and 20, 1916.
*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
*No. 206. The British system of labor exchanges. [1916.]
*No. 227. Proceedings of Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
*No. 235. Employment system of the Lake Carriers' Association. [1918.]
*No. 241. Public employment offices in the United States. [1918.]
*No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9–11, 1918.
*No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
*No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.
No. 542. Report of the Advisory Committee on Employment Statistics. [1931.]
*No. 544. Unemployment-benefit plans in the United States and unemployment insurance in foreign countries. [1931.]
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*No. 555. Social and economic character of unemployment in Philadelphia, April 1930.
No. 610. Revised indexes of factory employment and pay rolls, 1919 to 1933.
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No. 613. Average annual wage and salary payments in Ohio, 1916 to 1932.

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*No. 608. Organization and management of cooperative housing associations (with model bylaws). [1934.]

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*No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
*No. 201. Report of the committee on statistics and compensation insurance costs of the International Association of Industrial Accident Boards and Commissions. [1916.]
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*No. 234. The safety movement in the iron and steel industry, 1907 to 1917.
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*No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers' Committee. [1919.]
*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
*No. 256. Accidents and accident prevention in machine building. [1919.]
No. 267. Anthrax as an occupational disease. [1920.]
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*No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
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No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14–16, 1926.
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*No. 490. Statistics of industrial accidents in the United States to the end of 1927.
*No. 507. Causes of death, by occupation. [1930.]
No. 582. Occupation hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. (Revision of Bul. No. 306.) [1933.]
*No. 602. Discussions of industrial accidents and diseases at the 1933 meeting of the International Association of Industrial Accident Boards and Commissions, Chicago, Ill.

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*No. 237. Industrial unrest in Great Britain. [1917.]
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*No. 603. Comparative digest of labor legislation for the States of Alabama, Florida, Georgia, South Carolina, Tennessee. [1933.]
*No. 609. Discussions of labor laws and their administration at the 1933 convention of the Association of Government Officials in Industry of the United States and Canada, Chicago, Ill.

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*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
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*No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
No. 461. Labor organizations in Chile. [1928.]
*No. 465. Beneficial activities of American trade unions. [1928.]
*No. 506. Handbook of American trade unions: 1929 edition.

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*No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
*No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.]
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*No. 465. Beneficial activities of American trade unions. [1928.]
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*No. 266. Seventh, Seattle, Wash., July 12–15, 1920.
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*No. 352. Tenth, Richmond, Va., May 1–4, 1923.
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*No. 411. Twelfth, Salt Lake City, Utah, August 13–15, 1925.
*No. 429. Thirteenth, Columbus, Ohio, June 7–10, 1926.
*No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.
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*No. 530. Seventeenth, Louisville, Ky., May 20–23, 1930.
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*No. 609. Nineteenth, Chicago, Ill., September 14–15, 1933.

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No. 210. Third, Columbus, Ohio, April 25–28, 1916.
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*No. 395. Index to proceedings, 1914–1924.
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*No. 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
*No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
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*No. 337. Tenth, Washington, D. C., September 11–13, 1922.
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*No. 159. Short-unit courses for wage earners, and a factory-school experiment. [1915.]
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Monthly Labor Review

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